

Managing in conditions of extreme market volatility

A case study of the Middle East operations of a multinational agribusiness

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by Mohamad I. Hanbaly**

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May God the merciful give me the strength and the determination to continue production of knowledge that could be of value to humanity.

ABSTRACT

Title: Managing in conditions of extreme market volatility: a case study of the Middle East operations of a multinational agribusiness.

Author: Mohamad I. Hanbaly, University of Liverpool, Doctor of Business Administration

During the last ten years market volatility in the Middle East has increased significantly for several reasons. The political and economic instability resulting from wars, international sanctions, fluctuations in oil prices and exchange rate has resulted in a continually uncertain market environment. Multinational companies within the agribusiness industry have faced additional challenges for sustainable operations in the face of climate change. Such companies have sought management solutions that maintain stability within their operations despite the emergent challenges in this sector. The objective of the research is to cultivate actionable strategies for the improved management of the Middle East operations within one multinational agribusiness faced with a volatile market environment.

The research draws upon a range of concepts within the academic literature that relate to management in conditions of market volatility: agility, flexibility, adaptability, responsiveness, and absorption. These concepts are used to inform my engagement with managers within a leading agribusiness multinational operating in the Middle East. The research methodology comprises a number of stages. Firstly, qualitative interviews were held with managers across a range of functions to both understand the current operation and to deliver the evidence for the development of actionable strategies for improving operational management. Secondly a thematic analysis of the interview data led to the generation of an actionable framework for effective management in response to market volatility. Finally, this model was “tested” with senior managers through engagement process to collaboratively generate actions that enhance management of volatility for the case studied organization.

The actionable framework is meant to be holistic in its approach towards Middle East market management and addresses volatility across three key imperatives: (1) The organization to be market driven; (2) Management to develop strategies for the three distinct phases related to market penetration, responding to volatility and learning from volatile episodes; (3) Management to develop actions plans within three operational categories of “agile performance”, “optimized response” and “agile capability”. The prioritized action area concerned the development of hybrid management committee between functions and HQ/local. The timescale of this DBA research (cf full implementation of the actions) has not allowed an evaluation of this hybrid committee.

The thesis concludes with reflections on both the implications for managers operating in comparable volatile environments, and the implications for my own professional practice.

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LIST OF ABBREVIATIONS

AOL	Accelerated Operational Leverage
CAGR	Compound Annual Growth Rate
CEO	Chief Executive Officer
CRO	Country Representative Office
FAO	Food Agriculture Organization
F2F	Face to face
ME	Middle East
SBS	Service Business Support
WOW	Ways of Working

Chapter 1: Introduction

1.1 Introduction to the DBA Thesis Project

This research project relates to the effective management of agribusiness firms operating in highly volatile markets in the Middle East. The research project seeks to produce actionable knowledge through a qualitative case study methodology. It aims to develop actions for the advancement of the case studied organization in its management of its Middle Eastern markets. The study was initiated by a literature review focusing on agility management. This provided the researcher with a profounder understanding of the existing body of knowledge and contributed to a diagnosis of the issues faced by the case studied organization. This was followed by the acquisition of first-hand data, which was analysed in order to develop a actionable framework for managing in this volatile environment. The framework was then "tested" and validated with the senior management of the company in question.

This chapter introduces the issue addressed in this research project. It presents the agribusiness market trends and explores the challenges facing the industry, including multinationals. It then introduces *AgroFirm**, the case studied organization in this thesis, and sets out an initial description of its work-based problems. It is important to stress that this research is dedicated to Middle Eastern markets characterized as being volatile with respect to the agribusiness industry only. Throughout the research, synonyms for volatility, such as market uncertainty, turbulence, instability and unpredictability, are used interchangeably so as to avoid repetition.

1.2 Agribusiness industry: Global and Middle East Market Volatility

The global agribusiness industry represents an estimated annual turnover value of \$100 billion in terms of manufacturing crop protection solutions and seed production. The industry is important since it plays an integral role in food security across the globe. There has been an increased demand

* Name anonymized in keeping with Research Ethics commitments

for food driven largely by a continual increase in the world's population, which is estimated as being likely to reach 9 billion by 2050. Global agribusiness manufacturers and suppliers face a challenging business environment characterized by market volatility. According to Chen (1996), market volatility is defined as uncertain returns on investment where deviations from standard operations or market environment continuously exist. Such market volatility results in rapid and extreme variations that influence food security and increase the business risk for various stakeholders acting in the agricultural business value chain. There are several factors behind the uncertain market situation facing agribusinesses. These factors are the accelerated increase in population, the global financial crisis, energy demand and biofuel supply, adverse weather conditions and market dynamics in terms of evolution or reformation of countries (Karanja et al. 2003). Other factors identified by Davier, Heyder and Theuvsen (2010) are exchange rate volatility, political instability, government policies, reduced agriculture stocks and concentrated competition. Rabobank Food and Agribusiness Research and Advisory (FAR) in 2010, reported that agribusiness companies would be challenged with increased market volatility in coming decades due to these trends. The next few paragraphs reflect in detail on the different market trends that are influencing the agribusiness environment and fostering market volatility.

1.2.1 The Global Financial and Economic Crisis

The last decade has witnessed several economic events that have shaken many industries and companies. Sull (2009) described these years as exhibiting a high speed of change. The growth of emerging markets, the sharp increase in commodity prices and the global financial crunch affected most industries, including the agribusiness industry. During the financial turmoil in markets across the world in 2008, volatility in agriculture also increased, especially due to crop produced commodities that flooded global markets due to high production. This led scholars like Dorfman and Park (2010) to articulate a deeper linkage between the agricultural sector and the food manufacturing segment. Their study focused on identifying the association between investors, farmers and food manufacturers that in turn fostered volatility. They argued that during market uncertainty there is a need for risk management as well as improved knowledge of the business value chain to attain a profound understanding of the links between the various influencers in the industry (Dorfman and Park, 2010). The impact of the credit crunch continues to affect the

industry, especially in the Middle East where the agriculture value chain still suffers from a lack of liquidity and cash flow challenges. Based on IMF and World Bank reports (Fakir, 2009) the inflation rates in Middle East rose from 7% to 13.5% and led to social unrest in many capitals in the Middle East. Many private companies in the agribusiness sector in ME changed their focus from investments to recovery actions as the growth was stymied. The GDP growth rate in various Middle East markets was dropped into half leading to emergence in market uncertainty. Governments were paralyzed in the face of increased rates in unemployment and dramatic falls in foreign investment. Von Witzke et al. (2009) argued that world financial and economic crisis in 2008 fostered an intensified volatility in agricultural markets.

Table 1.1 Financial figures illustrating the impact of global financial crisis on the Middle East economies based on International Monetary Fund (IMF) & World Bank (Fakir, 2009).

Figures	2006	2008	2010
Inflation Rates	7%	13.5%	6.5%
GDP Growth Rates	5.3%	6%	3.8%
Current account balance (Bn. \$)	200	50	100
Unemployment rate	13%	11%	12%
Foreign Investment Rates	13%	19.7%	6%

DOW Chemical's CEO said once: "We are living in a very different world than that prior to 2008, and it has become clear that this new level of volatility is here to stay" (Coons, 2012, p: 10). Vázquez-Bustelo and Avella (2006) argued that the current market volatility is the worst possible situation for any organization to stay in business. The new risks have posed new challenges to investors in the agriculture market due to their negative impact in terms of price unpredictability across the value chain. An alternative longer term outlook, however, is provided by the billionaire investor Jim Rogers, who highlighted that the agriculture sector will grow to the extent that in the next 20 to 25 years it is farmers who will drive the best cars (Harding, 2012). Such an attractive potential return on investment has encouraged many investors to increase their shares in agriculture business or food production, recognising that it is critical for human existence.

1.2.2 Food Security Due to Continuously Rising Demand

In the years between 2006 and 2008 the global demand for agricultural produce rose enormously and resulted in increased prices, which in turn influenced negatively food security for many nations (Tandon, 2010). During the World Food Summit (1996) the FAO defined food security as when societies have enough access to safe and nutritious food at all times for a healthy and active life. The Middle East was one of the markets facing food insecurity because of the high rate of birth, the political and economic insecurity and its market characteristic of being consumers rather than producers to food. Abou-Hadeed (2009, p: 150) mentioned, “Food security is a growing international challenge that is felt especially in the Arab world. The factors affecting food security in the region are ever growing population, the limited water resources, the unfavourable weather conditions, and political and economical instability”.

Actually, the Middle East depends on importation of food to meet the increasing demand for food supplies due to population growth. The World Bank in 2008 reported that the Middle East imports around 76% of its food (Ianchovichina, Loening and Wood, 2012). The reason behind such a high level of food importation is the severe shortage of water and the limitation of arable land, along with a vulnerability to weather conditions that dramatically enhances market fluctuations and increases concerns about food security (Khoury, Shideed and Kherallah, 2011). The 2008 agriculture commodity price crisis showed the extent of the vulnerability of Middle East markets when it comes to food security and how they are affected by price volatility (Charles et al., 2010). Furthermore, with the rise of fertilizer prices and energy inputs required to operate farms, the cost of production has increased tremendously thus forcing existing farmers to reduce their plantation areas as they were not able to afford bigger investments. On the other hand, there are countries that are facing shortages in food due to war, like Syria, Iraq and Yemen, while others are struggling with over production and high supply due to limited demand like Lebanon and Jordan.

These uncertain food security resulted in challenges in the Middle East region and requested the need to develop strategies that prioritise risk management as an element to mitigate market uncertainty in the agriculture sector (Khoury, Shideed and Kherallah, 2011). Many active players in agriculture including governments, NGOs and private companies, have tried to leverage the food production potential in the Middle East to meet the continuous demand. All these

initiatives did not succeed as planned, in many countries due to the complexity of market environment that is highly irregular and challenging.

The volatile nature of the agribusiness industry in the Middle East has affected the whole business value chain (Davies, Heyder and Theuvsen, 2010). This intense volatility becomes visible across many actors like policy makers, food chain, agriculture companies and energy suppliers. Karanja et al. (2003) argued in his research on volatile markets that market volatility threatens the profitability of growers and if not properly mitigated then it endangers business survival. The study added that to continue operating, firms need to exhibit high levels of adaptability to manage the challenges of market volatility. This required their management to seek for effective ways to stay in business.

1.2.3 Middle East Political Instability

The Middle East markets are continuously affected by wars and revolutions across different countries with dramatic wicked problems (Churchman, 1967) related to several wars and revolutions across different countries. These wars have resulted in high levels of political and economic unrest affecting countries and industries. Political unrest has led to poor agriculture infrastructure that does not support the development of farming. These external challenges have entrenched market volatility and pushed agribusiness companies to seek effective ways to manage uncertainty in order to remain in business. For example, Jordanian vegetable production relied on the export market, including Europe, until 2012. More than 60% of its tomatoes, peppers, and cucumbers were packed and driven through Syria to Turkey and then to final destinations in Ukraine, Russia and other European countries. With the Syrian civil war, however, the borders were closed and in less than two years, the export business had dropped to null (Omari, 2015). The same happened for exports of agricultural produce between Lebanon and the Gulf countries as well as between Iraq and Iran, due to the Iraqi civil war. These blockages in the movement of produce within the Middle East and to external export markets have caused an imbalance between demand and supply in the market place.

This political unrest, therefore, resulted in a dramatic decrease in the planted areas, a high supply for local markets, very low prices for the last five years, and difficulties accessing credit

due to farmers' weak financial situation. Multinational agribusiness companies active in the Middle East markets were affected dramatically; either closing their operations in Syria, Iraq and Iran or decreasing their investment, as in Jordan, Lebanon and the Gulf countries. Those who remained faced unexpected situations that required alterations to the way they managed their operations and approach to market.

1.2.4 Agriculture Commodities Price Volatility

Energy and petroleum are considered essential aspects in farming. Many agricultural inputs like fertilizers and pesticides are linked to petrol prices. Farmers' operations rely on energy and thus any increase in energy prices affects them. Commodity prices in agriculture have become more volatile since the development of biofuel technology. The use of agricultural land to produce biofuel crops has put pressure on land for food production. Actually, the integration between biofuel production and energy has led to complex relationship between agricultural production and energy prices thus positioning agribusiness industry in a new era (Hertel and Beckman, 2012). The more integrated energy and agricultural activities are the more the prices of commodities become volatile due to increased demand in the market place.

Davier, Heyder and Theuvsen (2010) recognized the influence of globalization on price volatility because the latest financial and economic crisis directly affected agricultural markets and the agribusiness value chain. Du, Yu and Hayes (2009) in their empirical study investigated the leakage of value in the agriculture sector due to energy price volatility, which has a direct influence on the production of field crops. Their study concluded that there is huge volatility because of the spill over from the petroleum market to corn market. The association between the crude oil price and that of biofuel in agriculture markets has resulted in a highly unpredictable price environment. Increased demand for crop production requires more land use being devoted to biofuel crops, thus influencing the price of other crops (Wise et al., 2014). Moreover, government policies regarding biofuel have increased the relationship between energy and agricultural commodities and prolonged this instable environment.

Food security is also negatively affected by biofuel production, since there is competition for land and resource between crop production for human consumption and that for renewable energy production (Hertel and Beckman, 2012). Sceptics about whether biofuel production is a solution for renewable energy needs claim that such redirection of the objective of agriculture is increasing produce prices and promoting market volatility (Ellas, 2014). This uncertain environment in the agribusiness industry globally, has increased the pressure on the agriculture sector in the Middle East, influencing how companies perceive and forecast their business operations.

1.2.5 Extreme Weather Conditions

Agriculture is influenced most by the extreme weather conditions that the earth has witnessed in the last decade. Adverse or extreme weather has influenced the production of many crops within the Middle East especially in drought regions or through storms and floods. For example the summer 2015 and 2016 in most Middle Eastern countries was remarkably hot and dry comparative to the last twenty years, and extreme high temperatures with low humidity were more frequent in August and September than any other years. Moreover, Middle East has been identified as the region that is effectively running out of fresh water and the access to drinking water will become a serious concern.

The Middle East temperature will continue to increase as witnessed during this research study period 2012-20015. Johannes Lelieveld, a well know expert in atmospheric conditions, predicts prolonged heat waves besides windblown desert dust (Dvorsky, 2016). Actually, the temperature in the Middle East has been increasing tremendously since 2005 and is predicted to increase in coming years. Currently, the summer temperatures in parts of the Middle East average (30°C) at night and during the day reach to (46°C) versus previous years where it ranges between 28 °C and 42 °C. Moreover, it is forecasted in coming decades that the midday temperatures will exceed 50°C. For example, prior to 2005, the temperature was calculated around having 16 "excruciatingly hot days" per year. However, these excruciatingly hot days have increased for about 80 days per year and expected to reach to 118 days in coming decades. Dvorsky (2016) added that weather experts also found that desert dust is increasing in the atmosphere in Iraq, Saudi Arabia, Iran, and Syria. This is attributed to an increased frequency of sand storms with enhanced droughts.

Agriculture in Middle East will be facing more and more volatility due to the above mentioned extreme weather conditions. Verner (2012) explained that agriculture production and economic security in Middle East is being challenged by low levels of rainfall, high temperature fluctuation, and even rise in Mediterranean Sea level.

Winston (2014) highlighted that the main challenge many companies are facing is global climate change, which influences the availability of resources. He added that these changes are forcing firms to rethinking their strategies and operations so as to reinforce business sustainability and create new value. Tolba and Saab (2009; p. 32) explained that “Droughts, floods and other forms of extreme weather will become more frequent, threatening food supplies, economic assets, and human lives. Plants and animals which cannot adapt to the changed weather conditions will die”. They added that the Arab world should respond to these climatic changes by identifying ways in which the agriculture sector can adapt to climate change.

1.2.6 Market Improvement and Development

Karanja, Kuyvenhoven and Moll (2003) argued, on the foundation of an empirical revision of African markets, that market improvement is directly linked with commodity price volatility. This is because investors will get attracted to the agribusiness sector when commodity prices are high and with time these prices will adapt with international markets. This will lead to “the increasing competitiveness of global food chains that creates a hostile environment for smallholder agriculture” (Amanor, 2012, p: 733). However and despite the consolidation of farmers in the Middle East, it is still obvious that major production areas are still fragmented and rely on small holders.

Accordingly, as a reaction to increasing price volatility and challenging competition, international firms have decided to widen their operations across various regions in the world in an attempt to diversify their investments and reconfigure agribusiness food systems (Amanor, 2012). Those firms that operate in developing markets, however, were challenged by these highly competitive markets where high competition prevailed and volatility is a threat to them (Doin, 2001).

Investments in the agriculture sector in the Middle East is driven mainly by the private sector and followed later by governments in selective countries like the Gulf countries and Iraq. According to the Intra-regional FDI, investments in agriculture have been increasing rapidly since 2007 by 64% and peaked at \$US 34 billion (Halawi, 2009) in the year 2008. International investments in the last 2 decades increased in the agriculture sector from \$17bn to \$77bn in 2011 with CAGR of 6% (Tanyeri-Abur and Hag Elamin, 2011). The impact on market development was reflected in introduction of technology in the agriculture sector in terms of its inputs related to machinery, farming structure, seeds, fertilizers, irrigations...etc while improving the output in terms of yields, quality of production and that of diversification in terms of farmer produce being field crops, vegetables or fruits.

1.3 Multinational Agribusiness Firms: Effective Management of Volatility

The drivers of market volatility in the Middle East influence the way multinationals operate in the Middle East markets. Ansoff and McDonnell (1990) explained that organizations should keep developing their systematic approach towards market environment turbulence. The increasing unpredictability in the Middle East market needs continuous novel and complex approach (Ansoff and McDonnell, 1990) to manage turbulence away from long-range planning or strategic planning. Actually, organizations should consider market turbulence as key driving force that dictates their strategic approach and response to market (Ansoff and Sullivan, 1990). Companies engaged in the agribusiness industry have reacted differently to these uncertain market conditions. Some companies enforced their operational processes for better control and service to these markets. These companies sought compliance with international standards irrespective of the surrounding business environment. Others with a conservative organizational approach showed little interest in operating in unreliable volatile markets like the Middle East and discontinued their operations. Others, however, relied on their leadership agility to mitigate the hostile market environment, adjusting their organizational structure to be more elastic and adjustable to permanent changes in market conditions (Joiner and Josephes, 2007; De Meuse et al., 2010; Horney et al., 2010; Torres, 2013).

A key managerial approach that academics and practitioners have discussed in respect to dealing with market volatility, therefore, has been agility management. Organizational agility started to gain the attention of companies interested in operating in volatile markets in recent decades. Chin (2004) defined agility management as the process of managing change during uncertainty to have a positive drive to the business. Practitioners appreciated the concept of agility management as it offers greater ability consistently to search for opportunities and capture them before the competition. However, the understanding and application of agility management differed from one company to another in the Middle East agribusiness sector. As a professional in the industry in the Middle East, I observed that some firms focused on sufficient portfolio breadth and width to support market penetration. Others designed flexible strategies that relied on local distributors or agents for implementation with vast space to manoeuvre as a response to market changes. There are firms that delegated the whole business to local distributors thus reducing risk and resources. The effective management of Middle East market volatility has become an important concern for practitioners but there is a need for a rigorous actionable framework to develop solid recommendations that could influence professionals and support their strategic approach.

From a practitioner point of view, many of the multinational agribusiness corporations have struggled to respond effectively to the market needs and requirements in the Middle East. They have failed to adapt their approach in terms of their strategy and operation to the market and in maintaining the energy and commitment of their employees to meet continuous unexpected market changes. The frequent and intense business discontinuity has continually disrupted companies' strategies, which were often based initially on the assumption that the market would stabilize. In reality, continuing high uncertainty required a unique interaction of various elements within the organization beyond the ones operating in a normal setup. Usually, multinationals with standardized systems designed for developed and highly compliant markets prefer to operate the way they do across all markets. They apply well-developed strategies with clearly defined goals, and sophisticated processes and procedures to ensure proper, valuable and resourceful management. Unfortunately, such strategies and processes are inefficient in volatile markets where extraordinary surprises emerge (Scott 1998). Scholars like Holling and Meffe (1996) have suggested that such unexpected local conditions lead to organizational failures since strategies do not reflect market requirements.

1.4 Introduction on *AgroFirm*: The Case Studied Organization

AgroFirm is a leading multinational agribusiness company headquartered in Europe. The company operates in more than 100 countries and has its local organizations and offices in more than 80 different markets. *AgroFirm* manufactures and supplies products related to crop protection and seeds to farmers across the world. The company employs more than 20,000 individuals occupying various functions, including R&D, marketing & sales, supply chain, human resources, finance and management. The company is dedicated to delivering its strategy to diverse developed and emerging markets across the globe. *AgroFirm* claims that their strategy was developed in such a way as to be able to deal with mounting economic and environmental challenges. More than 50% of its sales come from emerging markets like Brazil, Russia, China, India, Africa and the Middle East.

The company had several divisions and was operating in silos in the past, as each division had its own business management and supporting functions. The company decided in 2011 to integrate its various business divisions by integrating its crop protection and seeds businesses so as to deliver complete solutions to their customers. Their objective was to deliver their combined offer through a single sales force capable of supporting these solutions technically and commercially. The globally integrated commercial operations of both crop protection and seeds also had the ambition to enable operational synergies, achieve cost savings in procurement and ensure supply chain efficiency.

Besides the integration, top management introduced a new system at *AgroFirm* known as SBS (service business support). The reason behind introducing SBS before the integrated strategy was to enhance top line growth, provide standardized procedures and to maintain their high profitability. SBS is considered a robust business platform that should transform the way *AgroFirm* delivers business support services in Finance, HR, legal and supply chain. SBS employs around 1900 experts as back office support. The plan for the company was to deliver shared services through regional centres, as well as drawing on the expertise of third-party providers. Despite the fact that SBS was fully implemented in 2010, its impact on the way employees operate surfaced more in 2011 and 2012 with the introduction of the integration strategy. The corporate management in their annual reports have claimed that SBS and the integrated strategy should mobilize agility and enable functions among and across the organization.

On top of the above two global strategic moves, a third initiative was the announcement of a bold new ambition by the CEO committing to growing sales in Africa and the Middle East from \$300 million in 2012 to \$1bn in the coming 10 years. The Africa and Middle East ambition also entailed the investment of over \$500 million during the same period for the recruitment and development of over 700 new employees. In addition, the project would ensure the development of distribution channel networks, logistics and local production facilities in collaboration with local partners to increase access to technology for growers.

The company had the vision at global level to maintain a standardized approach to its business and its operations across both stable markets like Europe and the United States and developing ones. For example, in supply chain and logistics, which is considered the key enabler for agribusiness, the management of *AgroFirm* decided in cooperation with a consultancy company to streamline the order management processes that had operated across multiple hubs around the world. In this joint project, the company decided to transform order management in an attempt to enhance agility and speed in the supply chain. Accordingly, the supply chain department introduced a global order management process that is considered best in class to achieve cost reduction, streamlined operations, and better control over orders through visibility improvement across the end-to-end process. With this in place, however, markets in volatile countries started to face a lot of challenges and actually lost flexibility and agility in favour of standardization. The impact of these corporate policies on the operations in the Middle East is described in the following paragraphs.

The *AgroFirm* offices in the Middle East region were established more than 15 years ago in five countries: Jordan, Egypt, Iraq, Syria and Iran, with the aim of serving the entire Middle East market. Both Syria and Iraq was closed during the civil war. The regional office based in Jordan acts like a hub to support the surrounding countries. The number of employees increased in the last five years to exceed 15 individuals in the Jordan office. This increase in *AgroFirm* staff reflected the corporate and Middle East regional strategy to grow in emerging markets. The current regional office includes representatives responsible for marketing and sales, order and demand management, and technical support. Iraq office with two employees re-opened in 2011 but in Syria not yet. All finance and invoicing activities for customers except Egypt were maintained by the export business department at headquarters. Since the *AgroFirm CRO* (country representative

office) was established in the market, the current team is considered to be experienced, to have a strong network across these markets. Despite the challenges of the different markets in Middle East, *AgroFirm's* market share in the agribusiness industry ranges between 7 to 10% based on targeted country. This market share reflected its portfolio strength, the solid partnership the company has with their market channels and their strategic proximity to the market.

In the last five years, *AgroFirm's* Middle East CRO organizational structure and operational setup has changed a lot due to the introduction of the integrated strategy between crop protection and seeds. For example, until 2012, *AgroFirm* Jordanian organization had two offices, one for seeds and another for crop protection products, but with the new corporate strategy, both offices were integrated regarding their employees, their management and their operations. The transformation towards one organization in the Middle East took more than one year and resulted in the emergence of new processes and systems that were addressed internally by the term WOW (way of working). As per *AgroFirm's* Middle East commercial policy, each country must have a written and communicated commercial policy governing both the internal and external ways of working. The intention of WOW was initially inspired by a corporate Framework document and training course that was released in 2013, arguing that “to be successful we have to embark on new ways of working and thinking that encourages our entrepreneurial spirit”.

The corporate SBS initiative (described above) transferred key elements of operational decision making back to headquarters. Since the CRO office had neither a financial department nor a human resource function, employees were asked to refer every single transaction or commercial decision back to headquarters in order to proceed. The Middle East commercial policy stated the following clearly: “Any decisions concerning changes to List Price, Terms of Payment or Commercial Terms and Conditions have to be initiated by Commercial Teams through Request Forms submitted centrally to Commercial Operations to trigger the approval process with relevant stakeholders” (*AgroFirm* Commercial policy, 2013). The overall framework of SBS served, over a period of less than two years, to centralize most of the decision making within management committees that were based in headquarters.

All the above changes in a very short period at *AgroFirm* have led to misalignment of goals across different functions. The SBS and the integrated strategy created ambiguities over governance between employees in the local markets and headquarters, resulting in congestion of

decision-making and the loss of business opportunities. Currently, *AgroFirm* has extended its strategy implementation period to exceed 10 years. The processes and decision-making platforms set within headquarters in Europe are considered by Middle East local employees as not compatible or even inefficient in vulnerable markets. Between 2012 to 2015, the sales growth slowed down due to external and internal challenges in the operation of the Middle East. Although *AgroFirm's* compound annual growth rate was ambitious they failed to deliver due to losses in some business be it in private sector or governmental tenders. These losses was for several reasons and included political issues in Iran & Syria, supply chain, exchange rate devaluation, and portfolio rationalization.

Table 1.2 Business related figures for *AgroFirm* in Middle East (Iran, Jordan CRO & Egypt)

Business indicator	2012	2015	Remarks
Sales Turnover	\$72mio	\$68mio	Lost sales in Iran & Syria. Upsides in Egypt & Jordan.
Market Share (% to <i>AgroFirm</i>)	7%	6.2%	Losses in Iran, Syria and Iraq
Impact on portfolio	105	76	Dropped due to HQ portfolio rationalization & loss of registrations in markets.
Opp. Lost in private market	(\$3mio)	(\$4mio)	Supply chain/logistic issues
Opp. Lost for tender business	(\$11mio)	(\$15mio)	Ability to deliver business
Exchange rate fluctuation impact on quality of business	(1.8%)	(2.5%)	Mainly coming from Egypt exchange rate where <i>AgroFirm</i> sell in local currency
# of offices in Middle East	5	3	Loss of Syria and Iran office
Local Employee Numbers	66	51	Downsize of IRAN org.

1.5 The DBA Research Objective

In context described above, several elements in the organization need to be adapted for success in managing volatility effectively. This study targets to build on the existing literature covering management in volatile environments, while engaging with practitioners to develop

actionable knowledge (Coghlan and Brannick, 2010) that leads to answers for the effective management of volatility in this agribusiness context.

In this research project a qualitative case study methodology is used to diagnose *AgroFirm's* issues in respect to the management of volatility in its Middle East operations (Turner, 1976). These problems need to be analyzed so that the complex issues are better understood, leading to proposals for actions that might resolve them. This work will adopt a collaborative approach between the researcher and a set of professionals in *AgroFirm* in order to develop management solutions to the challenges.

The next chapter is a literature review, identifying, analysing and criticizing existing knowledge in relation to concepts developed for the management of market volatility. Chapter three introduces the research design, related to the case study of *AgroFirm's* operations in the Middle East. Chapters four and five describe and explain the research findings, based on an analysis of the primary and secondary data that was generated from fieldwork. Chapter six presents the actionable knowledge derived from this empirical work, paving the way for a collaborative engagement with senior Middle East management of the case studied company. Chapter seven explains the engagement with senior professionals in the case studied company to validate the actionable model for the effective management of volatility, as well as to set out proposals for actions that address the diagnosed issues. Chapter eight summarises the conclusions from this research project, in respect to the feasibility of implementation to improve the performance of the case studied organization in the Middle East. Finally, the thesis ends with critical reflections in chapter nine related to the research as well as the overall scholar-practitioners journey I have experienced on the DBA programme.

Chapter 2: The Literature Review

2.1 About the Literature Review

In this chapter I review the literature in order to provide a foundation for the proposed research project. This chapter discusses the existing concepts in the literature in relation to effective management of companies in uncertain market environments. The literature review considers several critical elements to ensure focus and to offer an in-depth understanding of the concepts relevant to volatility. In bringing together different threads of literature, the review informs the subsequent empirical work in the guise of a conceptual model that is used as a basis for conducting interviews with managers seeking to respond to market volatility.

A number of literature streams have addressed the issue of effective management in a volatile environment. These streams have adopted different terminologies, such as agility management, flexibility management, adaptability management, strategic resilience, responsiveness and simplicity; all of which are considered in this review. It is argued that these concepts are not sufficiently distinct and that they do not express a unique approach or solution to the work-based problem in question. The concepts contain a lot of overlapping ideas and terms and these required critical examination. There was a need to challenge these managerial themes in order to unveil their relevance to this study.

2.2 Concepts Related to Business Management in Volatile Markets

Scholars have increasingly focused during the last two decades on the ability of companies to perform in volatile markets (Stacey, 2011). It has been expressed by Hoon Kang et.al (2017) that the better understanding of organizations to market volatility the more the improvement of operational management that could enable superior risk administration and effective portfolio control. However, in the context of increased market volatility there has been a need to set new business priorities related to strategizing and business viability (Gunasekaran, 1999). Besides, developing winning strategies that support effective management of volatility become essential under changing environments (Wu et. al, 2017). Scholars have argued that organizations that are

able to adapt effectively to the continuously altering business environment will gain competitive advantage (Christopher, 2000; Ganguly et al., 2009; Bottani, 2009; Gunasekaran, 1999; Nejatian and Zarei, 2013; Qin and Nembhard, 2010). Understanding how to achieve competitive advantage in unsteady markets becomes the difference between winning and losing organizations (Baumann et.al, 2017).

Given the contemporary importance of this subject many ideas and concepts have appeared in the literature concerning how organizations might achieve this rapid adaptability, and these ideas often betray significant overlaps. Bernardes and Hanna (2009), for example, have noted that the overlapping use of expressions like agility and flexibility in the literature requires attention from scholars in order to clarify their differences. They argued that a conceptual differentiation is critical as currently many terms are used interchangeably. The literature search conducted for this review, however, identified “agility” as being the dominant term that was used by scholars for describing internal organization changes help dealing with volatility (Kidd, 1994). Other terms that scholars have used in the context of organizations trying to perform in turbulent market environments are flexibility (Reed and Blunsdon, 1998; De Toni and Tonchia, 1998; Bauernhansl et al., 2012), simplicity (Miller, 1993), resilience (Sambamurthy et al., 2007), responsiveness (Fink and Neumann, 2007), and adaptability (Kidd, 1994).

In light of the use of such overlapping terminology a framework was developed to structure this review. This framework is divided into three parts corresponding to the three different phases that organizations might address in volatile markets. The first phase reflects the organization’s *preparation* as management gets its first contact with a volatile market. The second phase is a *responding* phase during which the organization needs to respond to turbulent events in the market. The last phase is the *learning* from the episodes by the organization after experiencing or practicing management in a volatile market.

Zhang and Sharifi (2000) had previously suggested a conceptual model related to the constitution of three elements that organizations should adopt to gain agility. These elements were identified as “agility drivers”, “agility capabilities” and “agility providers”. The agility drivers are the external business environment that pushes the organization to search for competitive advantage. The second element, agility capabilities, highlights the organizational competences required to enhance responsiveness to market changes. The last element, agility providers, relates to the resources needed to achieve the agile capabilities. Whilst similar to the Zhang and Sharifi

model in some regards the phases used in this research project differ for several reasons, however. Firstly, the framework used in this thesis addresses a situation in which multinationals will need to move gradually from dealing with Middle East market in a basic commercial approach to a more integrated one. Secondly, it is specific to the agribusiness industry and framed in a case study of a multinational organization operating in Middle East with an objective to develop actionable framework. Overall, it suggests the move from a preparation phase to a responsive state that requires dealing with uncertain market conditions and thus a need for a different managerial approach than in the previous phase. Later on, with the learning phase, management becomes more deeply integrated in the market, continuing to progress in their managerial effectiveness through continuous learning and development of their capabilities.

The literature review at this stage of the research project is essential as it provides a framing for how academics have approached effectiveness in management of volatility. It also offers explanations on how management practices have evolved to deal with volatility. This aids the refinement of the research questions as well as in designing my field work: especially the interviews. Moreover and through criticizing the literature I was able to align my research with the most dominant notions of agility within the management literature. The next paragraph discusses in more detail different terminology found in the literature related to managing in volatile markets.

2.3 Summary of Terminology used in the Research of Volatile Business Environment

Academics and practitioners in the management of market volatility refer to similar concepts with different terms, e.g. agility, simplicity, flexibility, responsiveness, resilience and adaptability. This section sets out the various definitions that show the confusion within the literature on the use of these terms.

2.3.1 Agility Management

“Agility” is defined by the *Oxford University Press online* (2018) “the ability to move quickly and easily”. This everyday notion has been taken up by the business community in relation to staying ahead of fast-changing market conditions. The pace of business change has accelerated in the last two decades and maintaining competitive advantage has required organizations to respond quickly to new realities in the market (Hazen et.al, 2017). The concept became fashionable in the 1990’s for an effective mechanism for organizations to perform and prosper in

volatile markets. The concept of “agility” was first invoked in a business context by Roger N. Nagel and Rick Dove in 1991 at the Iacocca Institute at Lehigh University in the USA. They initially developed the concept to address capabilities in manufacturing enterprises, encompassing the different elements needed to encounter rapidly changing necessities of the market environment. The concept of agility was considered by both authors as the one element that enterprises would need to be able to run their business in the 21st century (Nagel and Dove, 1991). They denoted to agility management as the ability of organizations to change their patterns of traditional operations that were no longer appropriate or effective (Nagel and Dove, 1991). Later, the term agility developed to describe organizations that are able to withstand market volatility or turbulence (Tseng and Lin, 2011). Agility has become a critical competency where the organization enhances its performance in many different volatile settings (Hazen et.al, 2017).

Other definitions of "agility management" have become evident in subsequent work. Kidd (1994) considered agility to be a quick response to unpredictable market changes. He had a broad definition for the concept and suggested that agility related to organizational capability, including the experiences of its employees, its reporting format, and information systems. Agility was defined by Christopher (2000) as the organization's ability to react promptly to market changes in terms of needs and wants. Christopher (2000) added that the term agility represents an organization capability that reflects its agile structure, information system, supply chain and logistics, and the top management's mind-set. Bohdana, Karwowski and Layer (2007) described agility as being an active alteration of company systems and elements to unpredictable circumstances. Hazen et.al (2017) in their latest study defined agility as the firm's ability to sense change then adapt and respond to this change in order to enhance their performance in high volatile environment. Together with Kidd (1994), their inclusion of the term adaptation in this definition of agility altered the concept that was introduced by Nagel and Dove (1991) who tried to set agility as being distinct and not as reflecting adaptability. The term adaptability, or organizational adaptation, was introduced earlier by Miles et al. (1978) and was explained as being the process of decision making that could maintain alignment with external environmental conditions. The difference between agility management and adaptive companies, however, is that the latter derives from contingency theory and is based on buffering the organization from external turbulent environment. Organizations with adaptation traits implement boundary-straddling entities that protect the organization from instability. This approach is not about managing organizations through one

mode or style but rather adapting to the specific situations or environmental constraints where the company operates. Agile enterprises, on the other hand, maintain their market position through continuous introduction of improvements. Such progressive improvements need rapidly to capture unanticipated opportunities and keep responding to unexpected challenges (Dove, 1992). Employees in agile organizations, as per Dove (1992), are sufficiently empowered and well informed to be able to take immediate decisions accurately and quickly. Accordingly, knowledge management is critical for successful implementation of the agile concept.

Gunasekaran (1999) considered agility management to a step towards the effective management of a multiple enterprise structure leading to a winning strategy in highly competitive market environments. In his study, he considered agility management to be an organization capability through which firms can react quickly and effectively to changing market needs. It is about following a multi-functional approach where the organization can sense change in volatile markets and respond quickly to unexpected change through flexibly assembling resources, capabilities, knowledge and processes (Appelbaum et.al, 2017). This definition is in line with those of other scholars who have emphasized that in order to be considered agile; organizations have to be able to respond quickly and successfully to change.

On the other hand, Yusuf et al. (1999) explained the concept of agility as the ability of organizations to apply successfully elements of competitive advantage like flexibility, rapidity and novelty. They believed that organizations might be considered agile if they are flexible in integrating and reconfiguring their resources to achieve best practices that could support business development in markets characterized as volatile. Both Kidd (1994) and Yusuf et al. (1999) saw agility as going beyond speed in action and more concerned with organizational structure. They added that agile organizations usually reflect two key characteristics in their approach: flexibility and adaptability. These elements are utilized interchangeably in management within dynamic volatile markets. Prahalad (2009) addressed this kind of agility in approach using the term “Velcro organization”, in which companies have the ability to rearrange their people and capacity rapidly and creatively with the minimum of disruption or major structural transformation. Such elastic capacity and capability, when managed within a framework of strategic clarity, will empower the organization with agility in its operations. Several scholars have confirmed that if organizations facing continually changing environments manage their capacities effectively, and if they adjust their internal resources efficiently, then they would be considered as agile (Volberda, 1996; De

Toni and Tonchia, 1998). For those authors, agility entails organizations adopting flexibility and adaptability to compete proactively during uncertain times and within volatile markets. Their use of the terms flexibility and adaptability, however, merely serves to increase the potential for confusion with other research that has tried to distinguish these concepts from that of agility.

Researchers using the agility concept have often focused on manufacturers struggling in uncertain environments. The literature in the late 1990s' advanced the notion that manufacturers needed to adopt and apply the elements of agility management. Goldman et al. (1995) identified important attributes such as customer approach enrichment, enhancement of competitive cooperation, ability to master change and uncertainty management. These authors argued that these elements are vitally important for agile manufacturers and could leverage organizational people and information. They also explained that there are four key areas in respect to agility that need to be incorporated in order to improve firms' performance: strategizing, technology adoption, organizational structure and people. For Sherehiy, Karwowski and Layer (2007) agility starts by leaders developing a vision that reflects agility management and strategy.

Yusuf et al. (1999) envisioned the urgency of enhancing agility in the 21st century. They started from the observation that markets had become so complex and fast changing that they required manufacturing firms to shift towards an agility paradigm in order to compete effectively and have a winning strategy. Gunasekaran (1999) also considered agility as an organizational paradigm shift in knowledge management where innovation, powerful technological concepts, employee empowerment, and team productivity are key enablers. Within this perspective, Vázquez-Bustelo and Avella (2006) tried to validate the concept of agility management empirically, and their findings emphasized the importance of a paradigm shift across the whole organization. Companies that want to adopt agility need to go through organizational transformation whereby their structure supports innovativeness, empowers capable people and adopts technological platforms characterized by flexibility and intelligence (Kidd, 1994). Appelbaum et.al (2017) described the organizational challenges of embracing agility in terms of senior management developing an agile mission and vision that moves the concept beyond just market assimilation or environment scanning to the development of a true learning organization capable to leverage their human resources and motivate stakeholders.

The description of agility as being an organizational paradigm was suggested by Yusuf et al. (1999) in reference to a complete organizational way of thinking in enterprises. They added

that the newly emerging drivers forced manufacturers to embrace and shift to the agile paradigm. These drivers were identified as being related to commodity price volatility, market demands and customer business value chain development, competing environment, cross-industry coordination and having a synergetic approach towards manufacturing (Yusuf et al., 1999). Meeting these challenges requires an adjustment in the organization culture to leverage people's capabilities and technological platforms (Vázquez-Bustelo and Avella, 2006). In this perspective, peoples' capabilities will require high level skills and abilities that prevent of delays in deliveries on the basis of fast and efficient decision-making (Garcia-Alcaraz et.al, 2017). Through agile capabilities, firms will be able to survive, and even prosper, in volatile market environments (Bohdana, Karwowski and Layer, 2007).

Recently, Bauernhansl, Mandel and Diermann (2012) discussed the challenge of operating within turbulent markets as requiring an appropriate level of changeability to guarantee business continuity. They used the term "changeability" in reference to the agility concept in order to highlight the importance of adapting to a changing environment in a cost effective way. Nejatian and Zarei (2013) also used the same term "changeability", and emphasised that in a continuously changing environment this concept, as with agility, will help firms to gain a critical competitive advantage. Consequently, many organizations will be forced to redefine their needs in terms of changing and developing their capabilities to gain and incorporate agile elements. The focus areas for development are strategies, technology platforms, organizational structures and employees (Vázquez-Bustelo and Avella, 2006; Brown and Besant, 2003). Until the global financial crisis in 2008, the literature suggested that agility management was an essential solution for firms that would like to grow their business in uncertain market environments. Again, however, the overlap between the term agility and changeability risks confusion as practitioners seek to put these concepts to practical use.

Following the financial crisis in 2008, many scholars suggested that the concept of agility required more attention and deeper practical reflections. Ganguly, Nilchiani and Farr (2009) explained that organizations should adapt to volatile markets through embracing agility management, since this provides competitive advantage. They argued that the concept was insufficiently researched and required in-depth empirical studies to support firms in managing unexpected changes in the markets. They emphasized the fact that agile enterprises are firms that can adjust their internal structure, operations and people to face any unexpected changes or rapidly

changing environment. Bottani (2009) also advocated that agility management has become essential for firms that are in search of competitive advantage in volatile environments, but noted that the previous literature was not experiential enough.

In 2009, Donald Sull re-addressed agility management through an empirical framework that might guide practitioners to implement the concept. He explained that operational, strategic and portfolio agility needs to complement a company's absorption ability if they are to become market leaders in volatile markets. "Agile absorption", as defined by Sull (2009, pp. 80), is "the ability to consistently identify and seize opportunities while retaining the structural characteristics to weather changes". Sull (2009) further argued that the application of both agility management and organizational absorption is critical during uncertainty. Agility expressed through firms' ability to spot any business opportunity goes hand-in-hand with organizational absorption to have the strength to remain solid during market shifts. Sull (2009) advised practitioners to manage agility at three levels. The first one is operational agility, which usually relates to a firm's capacity, and improves operations or processes that could seize business opportunities. The second direction is portfolio agility, entailing the rapid and effective shifting of resources like cash or investments, talent and human resources, and managerial attention, to ensure flexibility. At this level, Sull (2009) argued that agile companies are able to reallocate their resources quickly to growing segments versus non-performing or slow businesses. The third level is strategic agility, the essence of which is to be a game changer in the industry. This is the ability rapidly to become involved in emerging businesses, aggressively penetrate new markets, and invest significantly in the firm's capacity. Sull is one of the few scholars that has addressed agility management in a holistic way, allowing organizations to embrace it at different levels and across various functions. Sharif and Zhang (2001) also referred to this holistic approach through their term 'integrated', and argued that agility in organization might be attained through an integrated approach where appropriate managerial practices are implemented to provide the required capacities to respond to volatility. The importance of an integrated organizational approach towards agility management, compared to the adoption of single function approach, like agility in the supply chain or sales portfolio, will be discussed further later.

Based on the above critiques, the concept of agility clearly needs to be researched more fully from a practical point of view. Academics have not yet made the relevance of agility for

professionals clear enough. Scholars have tried to develop tools that might support agility management and help practitioners to use it. Scenario planning is one tool that has been used to support the strategic agility approach. At one stage, this tool was fashionable for organizations to use when facing volatile markets. Peterson et al. (2002) in his examination of scenario planning highlighted that it could be utilized in an uncertain world to provide deeper understanding of the main uncertainties, support the establishment of alternatives during planning, and thus increase resilience if decisions need to be taken. Scenario planning is considered to be a systemic method that facilitates creative thinking in complex and volatile environments (Peterson et al., 2002). It requires managers to consider a variety of possible changes in the market in the future, including uncertainties in the system. Usually, however, there is little focus during scenario planning on the accuracy of predictions or outcomes, and scenario planning tools proved to be limited and did not offer enough solutions to management when the volatility of market increases and business disruption occurs (Berkhout and Julia, 2002).

Other researchers have studied other essential organizational elements like leadership, operational excellence and followers' readiness in the perspective of agility management (Horner, 2014; DE MEUSE et al., 2012; Ismail, Poolton and Sharifi, 2011). Horney et al. (2010) and Torres (2013), for example, realized the importance of leaders that are capable of anticipating change, generating confidence, liberating thinking and managing actions in response to markets that never settle down. De Meuse, Dai and Hallenbeck (2010) highlighted in their empirical work that leaders who demonstrate specific traits, such as flexibility and agility, are able to manage changing market situations and might perform effectively, but they were not able to clarify how such agility management needs to be directed. Other scholars have addressed the importance of process ownership in challenging business environments (Nesheim, 2011), where management controls help in gaining focus and performance across the organization. In addition, McAnaney and Blake (2010) agreed that process standardization would allow functionality and support to co-operative work across the organization and among different stakeholders. Hall (2013), in his work concerning organizational complexity, recommended the setting up of decentralized processes as a way of fostering responsiveness and increasing the effectiveness of decision making. Such differences across researchers towards operation management in volatile market suggest the importance of gaining deeper understanding on agility management in specific cases.

Although the literature is rich with definitions and explanations of the notion of agility, there is very little academic work on the ways to measure it in firms. In principle, the measurement of agility in an enterprise will support its strategic implementation by identifying the gaps, weaknesses and required levels of agility. Currently, most measuring approaches in respect to agility are backward looking or not robust enough to identify potential changes and responses (Arteta and Giachetti, 2004). Companies that intend to adopt agility as a reaction to volatility would benefit from complex measurement tools that guide implementation process and, unfortunately, these do not exist at this stage. Later on I will explain the importance of learning phase in management of market volatility and how it relates to agility in practice. However, the identification of the agility concept with its impact on management practices offers insights on how volatile markets like the Middle East could be served. These insights helped to frame the organizational challenge face by the case study organization within this research and informed the design of the empirical element of the project. A deeper understanding of agility and how it is mobilized across *AgroFirm*, be it in regions or across functions, becomes essential to meet the objective of the research project. Whilst the enactment of agility strategies seems relevant for organizations operating in the Middle East, there is also value in reviewing related concepts for the management of volatility to enrich options for action within this DBA project.

The next section will investigate other concepts identified in the literature that are related to management in volatile environments. Although the concept of agility appears to be the most dominant in respect to the effective management of market volatility, reviewing other terminology is important at this stage of the literature review.

2.3.2 Other Concepts related to management in Volatile Environments

Critiques in the literature have highlighted the ambiguity and inconsistent usage of various terms related to the notion as agility. For example, the term “flexibility” has often been used interchangeably with agility (Bernardes and Hanna, 2009). It is not clear in the literature whether resilience, adaptation, responsiveness and simplicity are distinct concepts, or whether they are being used as synonyms for the terms flexibility or agility. The following sub-sections will explore these terms and shed light on where they differ from agility.

2.3.2.1 Flexibility Management

Flexibility is an approach of organizations to the challenge of managing businesses in volatile markets. It involves reducing the level of uncertainty that an organization is facing by enhancing the capacity of the organization to manage and cope with uncertainty (Grote, 2004). Such enhancement could be approached by either flexibility in operations, flexibility in organizational structure or flexibility in the strategic approach. Reducing uncertainty could be limiting investment in turbulent markets where the chances of having business discontinuity are high. On the other hand, enhancing the ability of the organization to cope with uncertainty might be achieved by having flexible systems, decentralized decision-making processes, non-bureaucratic structures, and improved planning (Grote, 2004; Sanchez and Mahoney, 2004). In specific organization functions like supply chain, then flexibility is considered the most important measure for its performance (Garcia-Alcaraz et.al, 2017). This may be because flexibility is identified as the speed to manage and execute new strategies that supports changes in market conditions and/or in products profiles.

Some scholars believe that flexibility is the most relevant concept addressing aspects of organizational effectiveness (Bernardes and Hanna, 2009). There is confusion, however, as to whether flexibility is considered either a proactive or a reactive intervention to uncertain conditions. Gupta and Goyal (1989) perceived flexibility to be a reactive approach for manufacturers that provides an adaptive response to change. Managers could understand flexibility as a buffer between the internal and external environments, whereby it acts as interface between the firm's systems and uncertain market conditions (De Toni and Tonchia, 2005). On the other hand, other researchers positioned flexibility as being strategic and as able to redefine the way business is being done through a proactive use of flexible competencies (Gerwin, 1993).

In terms of process, flexibility is understood as the organization systems' ability to adapt to changing environments while keeping their ability in production (Bauernhansl et al., 2012). Flexibility reflects the enterprise's ability to adapt to large external market changes that have a strong influence on the enactment of the organization. Aaker and Mascarenhas (1984) initially introduced the concept of strategic flexibility, defining the term as the organization's ability to manage an uncertain business environment with vast changes that can impact company performance. They use the word strategic flexibility to stress the fact that the flexibility in question is needed to adapt to substantial long-term limitations that require strategic change or adaptation.

To achieve this, organizations need to have a set of measures that foster adaptation to market changes. Chan et.al (2017) defined the term strategic flexibility as the firm's ability to manage their strategic choices and respond to internal and external changes though leveraging their capabilities and investing in diverse resources. Indeed, some researchers have organizational changeability very much in mind when discussing flexibility (Bauernhansl, Mandel and Diermann, 2012). Others have explained flexibility as being the ability of firms to cope with volatility effectively and efficiently in terms of timing to change, the cost of change and the effort needed (De Toni and Tonchia, 1998). This is related to the organizational potential to implement the required changes when needed (Bauernhansl et al., 2012).

There are two possible dimensions for the implementation of flexibility in any organization or manufacturer (De Toni and Tonshia, 2005; Gagnon, 1999). The first is strategic flexibility, which relates to the ability of firms to set their competitive or business priorities, and the second is operational flexibility, which leverages the organization's ability to adapt to internal and external changes (De Toni and Tonchia, 1998). Regarding strategic flexibility, De Toni and Tonchia (2005) explained that it covers four different categories, summarized as speed of distinction of business priorities, the choice of strategic direction, promptness to shift from one business to another, and diversity of possible businesses. It equips organizations with the ability to react promptly to emerging volatilities and business opportunities (Chan et.al, 2017). For Aaker and Mascarenhas (1984), strategic flexibility has several approaches for implementation and should be monitored, evaluated and measured when executed. In this manner strategic flexibility is an organization capability that supports the company to manage their resources effectively in a way that they exploit their full resource potential (Kamasak et.al, 2017). This is managed through responding quickly and flexibly to unstable environment.

Furthermore, Mandelbaum (1978) categorizes flexibility into state and action. State flexibility refers to the ability of the company to keep operating despite the change while action flexibility is when, due to change, the organization shifts from one operation to another in an efficient way. Although the concept of flexibility was developed with the intention of addressing volatility and gaining competitive advantage (Volberda, 1999), in practice, the implementation of the notion was challenging to managers. It has been argued by Ramanathan et.al (2018) that the market regulations impacts the organization flexibility or inflexibility and consequently influences the firms' capabilities and performance. It appeared to be difficult for practitioners to unlock

themselves from previous experiences or beliefs upon adopting flexibility. As the market environment becomes more volatile, therefore, it gets more inefficient for managers to keep their conventional approach in strategizing and performing their business responsibilities. Managers might be defensive in their reactions to change, as they will be always committed to cultures and strategies they have nurtured and it will be painful for them to consider them obsolete (Miller, 1993). For this reason, they will risk losing the advantage of being flexible or the readiness to adapt to new and changing environments. That is why organizations should have a set of measurement criteria to audit flexibility (Aaker and Mascarenhas, 1984). Such auditing procedure could support the monitoring of flexibility operations, especially in areas where cost-benefit evaluation is perceived. On top of that, flexibility might not be sufficient in some cases where the capacity of the firm is limited and cannot meet market demands in terms of diversification and volumes. From this perspective, Bauernhansl, Mandel and Diermann (2012) highlighted that flexibility needs also to be measured from a business point of view. Besides, the flexibility of firms in production systems for example cannot be infinite but it should be kept economically viable for the organization and examined critically to monitor its performance and its ability to adapt to the market environment.

2.3.2.2 Adaptability Management

The term adaptation is used extensively in the literature in reference to the various concepts that deal with volatile markets. Adaptability is the ability of the firm to adapt by treating the organization as an open system that interacts differently with different market conditions (Sherehiy, Karwowski and Layer, 2007). Dubey et.al (2018) argued recently in their research that adaptability is about meeting structural shifts in market conditions and being able to modify organization strategies, adopt technologies and/or products design without having ties from legacy issues. The concept of adaptation was built on the idea that organizations should not operate or set their structure and strategy in isolation from their external environment or industry trends. For Donaldson (2001 cited by Sherehiy, Karwowski and Layer, 2007), organizations will not perform unless they maintain their effectiveness by adapting over time to fit changing environments and meeting contingencies. The main emergencies discussed are the market conditions, the organizational size and structure, and its strategy. This relationship between marketplace and

organizational approach will determine the different types of organizational structure, form and design.

Pan et al. (2007) studied the complexity that organizations face in adapting to highly dynamic market conditions. They highlighted that the adaptation process is not easy for firms to follow since it requires the development of special capabilities. Accordingly, there is a need to acquire organizational capabilities where learning through experience is rapid and iterative (Pan et al., 2007). Some scholars have criticized the process of organizational adaptation, however, on the basis that it misses the opportunity to shape the future. Hagel et al. (2008) argued that companies need to have the aspiration to operate in volatile market from a bolder perspective wherein they are able to shape the performance of their enterprise through being a game changer. This is about benefiting from turbulent times to leverage creative management. It is this creativity that is considered to shape the organization as well as the industry itself. Teece et al. (1994) argued that adaptation emerges when organizations enhance their capabilities and develop them through iterative and experienced-based knowledge management. McKee, Varadarajan and Pride (1989) discussed the importance of adaptability in terms of fostering efficiency whereby companies can change their strategic orientation when operating in volatile markets. Rud (2011), however, focused his empirical work on the importance of organizational support for adaptability, and rejecting rigidity in structure and market approaches. In addition, Intezari and Pauleen (2014) recently used the same term of adaptability for management to maintain competitive advantage in markets that are difficult to analyze or predict. The importance of these perspectives lies in having organizations with adapted capabilities for longer-term change (Moscoso and Lago, 2012). Agility, however, is the ability to respond rapidly and flexibly to sudden changes occurring in volatile markets. For this research project, therefore, agility is considered to be a more relevant concept.

2.3.2.3 Strategic Resilience

A newly researched concept related to business management in turbulent times is strategic resilience. In the last few years the concept has appeared as a solution for management when facing increasing global business market volatility (Ponomarov and Holcomb 2009). In the 21st century, scholars have embraced this notion in an attempt to express how firms should dynamically reinvent their business approach in reaction to market demands and a continuously changing business

environment (Philippus, 2011). The definition of resilience in management is the ability of the organization to return back to its original state upon being disrupted by volatility or even move forward to a new but more desirable state (Koak et.al, 2018). Strategic resilience has become of interest to both professionals and academics in relation to strategic management (Carmeli and Markman, 2011). Gölgeci and Ponomarov (2014) explained the reason behind this growing importance as the rising volatility in the newly globalized uncertain economies, resulting in a lack of accountability and controllability. This volatility in the external environment has challenged firms to anticipate future market trends and forecasts, thus avoiding ambiguity characterized by wrong decision making or poor strategic direction.

The “resilient” concept was introduced by Bauernhansl, Mandel and Diermann (2012) as a solution in volatile markets enabling firms to operate with a low planning ability. Hamel and Valikangas (2003) defined the concept “resilience” as the ability of companies to reinvent new business opportunities and strategies that could help in coping with uncertainty. It requires managers continuously to anticipate future market conditions and adjust the organization to trends that enhance business sustainability and earnings. Strategic resilience in organizations should reflect the ability and the capacity to change before market conditions enforce it. Scholars have defined resilience in various terms, yet all these definitions are directed towards the ability of firms to deliver positive business results despite market volatility, since planning ahead becomes extremely difficult (Bauernhansl et al., 2012). In practical terms, it is about having the right level of skills to keep the organization knowledgeable about market trends and be able to enhance performance through responding quickly and flexibly to various changing business environments (Waterman, Waterman and Collard, 1994). Resilience is critical to organizations in volatile market because of its nature to mitigate sudden changes and quickly recover from market disruption to advance performance standards (Koak et.al, 2018).

Hamel and Valikangas (2003), in their work on resilience, identified three critical approaches for turbulent times, which they labelled as revolution, renewal and resilience. They highlighted the importance of having strategies that are unconventional and could result in solid financial returns. Besides being innovative, they stressed the fact that organizations need continuously to develop their strategies and business models in reaction to changing market environments. Before trying to make a change or have an impact on the industry, resilient firms

should work internally so as to change rapidly in the face of external volatility. In other words, change from the inside before approaching the external environment. Furthermore, resilience supports business sustainability as long as companies are able to have continuous business reconstruction. Resilience and agility, however, lead to the same meaning, as described by Philippus (2011), who argued in his article that they are two sides of the same coin. McCann and Selsky (2012), meanwhile, explained that his 10 years of research on resilience resulted in convincing him that resilience is the counterpoint to agility.

2.3.2.4 Responsive Capability

Zhang and Sharifi (2007) use the term “responsiveness” to refer to an organizational capability for business management in volatile conditions. When reviewing the literature, however, it was observed that “responsiveness” was always used jointly with other terminology like agility and flexibility. Yusef et al. (1999) and Vázquez-Bustelo and Avella (2006) both noted that the definition of agility by the Iacocca Institute incorporated the term “responsiveness” as being part of the capabilities that the organization should embrace to manage rapidly changing conditions. Tseng and Lin (2011), in their work on agility enhancement in firms, identified “responsiveness” as one of four distinguishing attributes required to deal with uncertain business environments. Sherehiy, Karwowski and Layer (2007) also argued that responsiveness is one of the characteristics of agility. Heininger (2012) and Sharifi and Zhang (2001), meanwhile, considered responsiveness to be the main component of agility, in that it adds to agile organizations the timely dimension of change in response to market volatility. Moreover, Gunasekaran, Tirtiroglu and Wolstencroft (2002) identified flexibility and responsiveness as critical elements for companies to achieve agility and be able to compete in the 21st century.

Bernardes and Hanna (2009, pp:30), on the other hand, differentiated responsiveness from agility and flexibility, considering that responsiveness “commonly refers to a system behaviour involving timely purposeful change in the presence of modulating stimuli”. They explained that agility is an organizational approach and flexibility is characteristic of a company system (Bernardes and Hanna, 2009). Other scholarly work has differentiated responsiveness from adaptability. Katayama and Bennett (1999) explained that responsiveness is the speed to react to

customer requirements, while adaptability is the organization's ability to adjust its systems or modify its production costs as a reaction to market demands.

Zhang and Sharifi (2000), in their empirical research work developing a methodology for organizations to achieve agility, explained the importance of responsiveness. They argued that it is the company's ability to identify, respond and recover from change. It is about identifying, recognising and expecting change followed by immediate reaction and later recovering from change (Zhang and Sharifi, 2000). They concluded that responsiveness is the most critical capability for an agile organization, while flexibility and speed are essential to achieve responsiveness. In conditions of volatile market demand, responsiveness become critical for an organization and increasingly demanded by customers (Stevens & Johnson, 2015).

As discussed previously, scholars have not been able to agree on the use of these different terminologies that refer to best managerial practice in reaction to market volatility. The overlap between the notions of agility with other terms, including responsiveness, is well noted. There have been some attempts by researchers like Bernardes and Hanna (2009) to enhance clarity but these are only starting. Further scholarly work is required to differentiate these concepts in terms of their reactions to market volatility.

2.3.2.5 Simplicity Concept

Miller (1993) identifies simplicity as being focused on a single goal, or a sole strategic activity or function. He added that the general concept of simplicity is "an overwhelming preoccupation with a single goal, strategic activity, department, or worldview - one that increasingly precludes consideration of any others" (Miller, 1993: 117). According to Santos & Moura (2016) simplicity in management is strategically significant yet not enough studied or understood. Firms can gain competitive advantage by focusing on illuminating non-efficient activities and managing fewer activities in a more concentrated way. It has been observed by academics and professionals that the challenge facing managers is a tendency to become obsessed with time-consuming processes and thus neglecting responsiveness to market changes and needs, thus losing competitiveness. The concept of competitive simplicity, as explained by Miller and

Chen (1996), helps to manage the organizational ability to support managers to deal effectively with the challenges of volatile markets.

On the other hand, the drawback of simply focused companies is that secondary matters are forgotten, and those who are involved usually lose their influence. The organization becomes more specialized in its systems and can be considered monolithic, as argued by Miller (1993). Firms with a simple focused approach will be challenged when facing a volatile market environment, since simplicity might be more damaging than complexity. Managers operating in diverse and complex markets might end up losing opportunities as they have failed to meet market needs and demands. Accordingly, Sy and D'Annunzio (2005) have argued that, in volatile markets, complexity needs to be faced or managed if the various forces encountered are to be addressed, and if the organization is to be able to change effectively as the market changes (Sy and D'Annunzio, 2005). Practitioners in various manufacturing industries have explored whether agility can be implemented through simplicity. Sundararajan (2009) in the mining industry, and Bingham (2014) in information technology, each confirmed that simplicity is a prerequisite for firms' agility. Moreover, Smith (2013) argued that agility leads to both innovation and simplicity in product management.

2.3.3 Concluding Remarks on Agility versus other Concepts or Terminologies

Through the course of this literature review it has become evident that agility management is the most dominant concept used by scholars in relation to the management of volatility. All other terms mentioned in this chapter like flexibility, adaptability, resilience, responsiveness and simplicity are, to greater or lesser degrees, interchangeable with the notion of agility. Bernardes and Hanna (2009) tried to suggest a differentiation between the three concepts of agility, flexibility and responsiveness. They tried to find a correlation in the use of these terms in an attempt to manage their overlapping usage. Their finding was a proposition of a hierarchal interrelationship between flexibility, responsiveness and agility. Agility, however, is the most dominant and profound, as expressed previously, and thus will be the focus of this research project. The reasons behind its importance in the literature are that it subsumes these other concepts. Thus, key threads of debate within the agility literature are: (1) that it covers organizations actions being *flexible* and *speedy* in reacting to new conditions (Yusuf et al., 1999; Bottani, 2009; Sherehiy et al., 2007); (2)

it considers organizations' ability to *respond* effectively to volatile conditions (Brown and Bessant 2003; Sharifi and Zhang 2001)., and (3)“to be *resilient* and *adaptive* to environmental change in order to maintain competitive parity and competitive leadership” (Sambamurthy et al., 2007; 24).

The variety of concepts related to the management of volatility that have been discussed in this chapter have allowed a more rigorous framing of the organizational issue. This framing provides greater focus in my engagements with research participants for the generation of empirical data. The literature review shows that a key concern of the literature in the last two decades was identification of solutions that serve practitioners to manage market volatility efficiently. The critique that the meaning of these concepts overlap in some case and complement in others shows the challenge of developing academically-robust concepts that deal with the practical aspects of the management of volatility. However, for this research project, the objective is the production of actionable knowledge that serves practitioners in the effective management of volatility. This creates the need for synthesising the different threads within this review in anticipation of conducting empirical work. With this framework of study in place, it will be clearer for me as researcher on how to progress the research project and generate data that is informed by the literature.

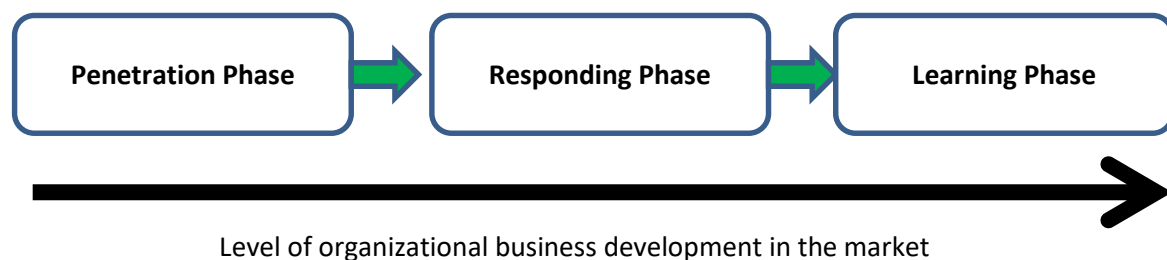
2.4 Framework for Studying Management with in Volatile Business Environment

Organizations that are seeking for effectiveness need to adapt to changing unforeseen events over time (Sherehiy, Karwowski and Layer, 2007). In volatile markets, there will always be unforeseen events that affect the way organizations operate. Sharifi et al. (2001) introduced an integrated approach for agile organizations to follow when entering volatile markets. The three levels in this model were labelled as “agility drivers” representing a volatile market environment, followed by “agility capabilities” related to the essential capabilities needed by organizations for their operations and the third level comprising “agility providers”, i.e. the means by which these capabilities are obtained. Sherehiy & Karwowski (2014) reflected differently on an integrated organization approach to agility arguing for the inclusion of various organizational factors including work designs and employees performance. They considered that agile adoption in an organization refers to a strategy that assimilates various techniques, practices and ideas emerged in the framework of a flexible and adaptive systems. Vázquez-Bustelo and Avella (2006) on the other hand, introduced a different practical framework to achieve a competitive position out of

agility. Their empirical framework proposed that an organization should have a strategic aim followed by advanced design with the necessary technologies and an appropriate workforce to operate in volatile markets. Sull (2009) also well proposed three levels, labelled as “operation agility”, “portfolio agility” and “strategic agility”.

For this research project, a different framework is introduced to support the empirical work on effective management in Middle Eastern markets. This framework adopts a temporal perspective in relation to turbulent events. These temporal phases are the “preparation phase”, related to the initial contact with the volatile market, followed by the “responding phase”, where the firm needs to operate and meet daily challenges of volatility within the market and, finally, the learning (from turbulent events) phase highlighted as “learning phase”.

Figure 2.1 illustrates the proposed actionable framework for the study of the management of volatility in volatile markets.



2.4.1 Preparing the Firm for Turbulence in the Operating Environment

The initial phase is where organizations set out their vision and strategy ahead of penetrating a volatile market. Organizations intending to penetrate uncertain markets, like the ones in Middle East, need to establish an agile foundation. This means that those organizations should be ready to acquire strategic abilities like speed, flexibility, responsiveness and specific competencies that support these agility traits (Sherehiy, Karwowski and Layer, 2007). To manage this successfully, organizations should ensure a clear strategic vision in the preparation phase (Vázquez-Bustelo and Avella, 2006). The organization should have the capacity to modify its strategic competitive priorities to be able to ensure more rapid responses to market changes (Aaker and Mascarenhas, 1998). That is those organizations that are planning to penetrate volatile markets should work on gaining specific characteristics that foster their rapidity in alternating their strategic

priorities when needed (De Toni and Tonchia, 2005). Among these characteristics are responsiveness, adaptability, flexibility, and speed (Tseng and Lin, 2011). Besides, advantage is directly related to the level of resilience the organization possess in a sustainable way (Koak et.al, 2018). Further to setting the right agile strategy there will be specific elements or traits that need to be added to the company. These traits are the adoption of specific technologies that could support operations in turbulent markets (Tseng and Lin, 2011; Thomke and Reinertsen, 1998); the enhancement of personal capabilities by overcoming existing paradigms within the company (Gunasekaran, 1999; Yusuf et al., 1999); leveraging innovativeness in business processes where empowerment becomes critical (Tseng and Lin, 2011), and a set of compelling alternatives ready to respond to volatility (Hamel and Valikangas, 2003).

For any agile organization that intends to prosper in turbulent environments it is necessary to shift their organizational structure to a leaner or more organic one that empowers middle management (Vázquez-Bustelo and Avella, 2006). Provided that they are capable and motivated, middle managers play a critical role in agile organizations. Their decision-making processes should be set ahead of penetrating the volatile market in a simple, flexible and rapid framework. This will lead to strategic flexibility, as argued by Aaker and Mascarenhas (1984) and De Toni and Tonchia (2002; 2005). This strategic flexibility will enhance the adaptation of the organization to volatile conditions by enabling rapid changes in priorities, choice of strategic options, adjustment between one business to another one, and diversity in investment. Prior to penetrating volatile markets firms should set out their strategic vision and flexibility so as to be well equipped for the expected challenges. Moreover, during the penetration phase, organizations should decide on their responsive orientation, whether as reactors, protectors, analysers or prospectors (McKee, Varadarajan and Pride, 1989).

These factors will help direct search for data during the empirical work within the case company. The preparation phase is critical for any organization planning to penetrate volatile markets. Thus, any deeper understanding of its challenges and importance that can be gleaned from the case studied organization will be important to meet the research objective.

2.4.2 Responding to Turbulent Events in the Operational Arena

This is the phase when the organization is operating in real time in volatile markets. During this phase, firms should develop an appropriate degree of adaptability in their systems and processes to enable responsiveness to market changes. There are inevitable challenges related to reliable forecasting in volatile markets and thus the organization should be able to support quick repositioning and effective changeability (Bauernhansl, Mandel and Diermann, 2012). To achieve operational flexibility it is necessary for this to be linked with organizational ability that is leveraged by a high speed of change from one business to another based on designed competitive priorities (De Toni and Tonchia, 2002). In practical terms, agile organizations should have the capacity to manage volatility challenges by diverting their investments or resources. They should be able to support new programmes or develop wide portfolios (Hamel and Valikangas, 2003).

Other elements organization needs during the responding phase are the ability to be driven by business opportunities in volatile markets (Hamel and Valikangas, 2003). This implies operational excellence or optimization of resources or processes to enhance agility. In volatile environments the greater the capacity of the firm to develop operations and systems that enable business opportunities to be seized, the better positioned the firm is to gain competitive advantage (Sull, 2009). This is the flexibility whereby agile organizations can shift resources in an effective and rapid way towards prosperous market segments. Thomke and Reinertsen (1998) recognized such flexibility as developmental flexibility, where organizations are able to modify product incremental economic costs as a reaction to internal or external volatile conditions. For example, in volatile markets, firms should adopt product development designs that tolerate high risk. The more the product is flexible in its design the more cost efficient it will be in case there is a need to change. This ability to shift products and resources as required should cover company investments, workforce and management direction (Sull, 2009).

In the case research within *AgroFirm* examples will be sought of how the company has responded to turbulent events.

2.4.3 Learning from Episodes of Environmental Turbulence

Nonaka (1991) argues that the only source for organizations to gain competitive advantage is to manage knowledge and manipulate it. Accordingly, Teece et al. (1997) argued that the continuous development of organizational learning and capabilities are essential in fast changing

environments. They added that, in many cases, organizations have failed to change their strategic approach to turbulent markets because of their limited ability to learn and acquire new knowledge. Agile enterprises should be able continuously to change their basic suppositions about their business operations as their external environment changes. From this perspective, Hamel and Valikangas (2003) explained that organizations face several challenges upon embracing resilient traits. Among these challenges is the mind-set challenge, in which arrogance in the firm results in denial of the changes happening around it, consequently affecting its success. Agile organizations should therefore embrace a culture of learning wherein their workforce are encouraged to invest in learning, making mistakes, reflecting, and acquiring challenging assignments to leverage their capabilities. Organizations should motivate people to learn though practising agility and be able to ensure coherence between performing on the job and learning out of it.

Agile learning is defined by many researchers as being the individual willingness and ability to improve performance through learning from and applying experience (Derue, Ashford and Myers, 2012 citing De Meuse, Guangrong and Hallenbeck, 2010; Eichinger and Lombardo, 2004; Lombardo and Eichinger, 2000).

However, the capturing of learning and the management of knowledge during turbulent and volatile times is not easy. According to Holsapple and Joshi (2000), the external market environment plays an important role in what kind of knowledge and resources should be acquired by the organization. It also influences what knowledge handling skills should be available. They argued that organizations in volatile markets have little control due to the effects of market turbulence, thus posing a lot of constraints on the management of knowledge, since such markets conditions usually result in the fast obsolescence of information if not updated frequently. From this perspective, achieving rapidity in knowledge management becomes critical to foster their learning capacity.

In the literature, Derue, Ashford and Myers (2012) argued that learning agility is still ill-defined among scholars. They added that poor definition of learning from agility is due to the fact that individuals need to learn from experiences to develop their capabilities is not yet clear how it could be managed. Learning within agile organizations is not clearly defined in the literature and is not differentiated theoretically and empirically from the concept of agility. Researchers have argued that the current explanation of learning within the context of agility depends on learning ability and that reflects a group of personal traits and attributes that support the development of

the skills and knowledge needed as a result of the changes in job requirements (Derue, Ashford and Myers, 2012). Lombardo and Eichinger (2000) tried to conceptualize learning agility through an empirical study in which they interviewed 200 managers and concluded that learning agility anticipated the level of employees' performance in their current role and their potential to move to the next role. They classified learning agility in four key dimensions. The first was people agility, meaning those who know themselves and are able to learn from own experiences: they are usually resilient during uncertainty. The second dimension is resulting agility where people achieve and energise others under difficult conditions. The third and fourth are mental and change agility related to those that are able to accept and manage ambiguity with passions for new solutions.

McKenna, Boyd and Yost (2007) built on previous research work and ran an empirical examination to explore further the notion of learning agility. From their study, they concluded that learning agility is enriched by situational conditions and factors. Usually the access to different roles or exposure to new experiences while being focused on delivering organization strategy reinforces learning agility. Derue, Ashford and Myers (2012) in their latest study on learning agility tried to crystalize the concept by tying it to speed and flexibility. They produced a set of attributes that are interlinked with learning agility. These attributes are goal alignment, rational abilities and openness to experience. To achieve this in practice, however, the agile organization needs to ensure enough organizational and technological support for learning. Firms are searching for such powerful tools and, as markets keep their volatility, leaders will keep finding new ways that could support learning from agility.

Table 2.1 represents a summary of the literature review, with the left column representing the three different phases while the right column summarizes the themes related to each phase.

Table 2.1: Summary of main themes related to agility in the literature review.

Phase	Themes
Preparation Phase	<p>Agile organizations’ ability to establish preparedness for operating in volatile markets:</p> <ol style="list-style-type: none"> 1. Ensure appropriate vision and strategy. 2. Establishing organizational priorities. 3. Adopting flexible technologies, managerial processes and product development. 4. Gaining of rapid flexibility to enforce agility in an organization. 5. Facilitating technological adoption, people capabilities and innovativeness in business processes. 6. Development of alternatives in readiness for uncertain conditions. 7. The need to manage managers paradigm that support agility.
Responding Phase	<p>Responding to turbulent events:</p> <ol style="list-style-type: none"> 1. Product development characterized by rapid flexibility. 2. Operational flexibility with a rapid shift from one investment to another. 3. Diversity with wide portfolio development and efficient support to new programmes. 4. Opportunistic driven approach. 5. Flexibility in forecasting with quick repositioning and effective changeability. 6. High responsiveness to market needs.
Learning Phase	<p>Learning from experience of volatile markets:</p> <ol style="list-style-type: none"> 1. Continuous development of organizational learning and capabilities. 2. Rapid learning to respond to the influences of the external environment. 3. Effective rational skills that overcome arrogance from learning. 4. Individual willingness and ability to improve performance. 5. Learning mind-set with high dynamism. 6. Setting solid platforms enhancing learning out of agility.

2.5 Implications for Empirical Work

This literature review has explored the challenge of effective management in volatile markets and how this has been an important topic of research for more than two decades. Both

practitioners and academics seek to understand effective ways to thrive and prosper in constantly changing environments. The literature is rich with many managerial concepts and terms that serve the same objective. There are thus many different approaches to describe and classify each of these concepts, resulting in confusion and vagueness in relation to these concepts and their components. Dominant in the terminology is the idea of agility management, and this is the terminology that will be used in this thesis. Nonetheless, it is recognized that researchers have approached the challenge of agility management in a fragmented way, with some focusing on organizational adaptability, others on leadership agility and many highlighting the importance of process flexibility, simplicity, responsiveness and resilience. Based on a survey related to management concerns conducted between 2003 and 2011 among top 30 companies in the US, the importance of business agility was in top three in the first three consecutive years and took second place in 2011 (Luftman and Ben-Zvi, 2011). The study highlighted that organizations should focus more on responsiveness and that their speed to market is considered a key pillar for their success.

The Middle Eastern location of this thesis is characterized by increasing volatility due to the many factors discussed previously. Moreover, the increased frequency of market shifts in agribusiness in the Middle East has resulted in obsolete forecasts and inadequate planning. Firms trying to operate in these markets have therefore been required to change their strategic planning practices (Lopas and Ross, 2013). From this perspective, agility management in the agribusiness sector in the Middle East reflects an advanced approach towards handling market volatility and complexity effectively. There is an urgent need for a deeper understanding of why companies in agribusiness in the Middle East should adopt agility, how they should manage it to gain effectiveness, what imperatives will be critical for performance and how learning might be achieved for progressive development.

The different themes of this review have been synthesised into a framework based on agility management and categorised into three temporal phases (the preparation, responding and learning phases). This framework will be used in the empirical work in the search for information on the ways in which *AgroFirm* manages its Middle East operations. The aim is to generate an in-depth understanding in a practical context of the managerial issues related to the Middle East market. This understanding will be co-produced participants in the case study company. The objective will be to produce actionable knowledge in a collaborative way and to identify specific management interventions to improve the management of these operations.

Accordingly, this DBA thesis aims to contribute an actionable framework that could support practitioners to understand the different variables emerging in agribusiness sector in Middle East volatile markets and how to react to them effectively. The expectation from following such rigorous research methodological approach is to deepen the understanding of the Middle East market volatility confronting the operation of *AgroFirm*, and thereby produce an actionable framework to aid the creation of practical strategies for improvement.

2.6 Research Question Review and the Way Forward

The literature review has played an important role in generating knowledge as to the available business concepts that support effective management of market volatility. In addition, the empirical reflections and actionable framework that have been developed will support the utilization of the concept to be relevant to professionals. The central aim of this DBA research is to develop actionable strategies that will lead to improvements in *AgroFirm's* management in a volatile environment. Data will be generated from the case studied organization that will help in deeper understanding of the issues encountered in volatile markets. Furthermore, actionable knowledge will be generated as we proceed from “mapping the terrain” (Ramsey, 2014, p.14) to evaluation and validating research findings in collaboration with senior management at *AgroFirm*. This research process will conclude with a set of proposals for action and final reflections.

How can companies achieve effective management of volatility in agribusiness industry in the Middle East markets?

The key motivation behind the selection of this research question is its high meaningfulness to organizations intending to change or develop in order to deliver their strategies in Middle East. These emerging markets are unpredictable and require complex approaches, since a standard structured approach will not be sufficient to handle such complex and frequent business discontinuity. Enabling agility in Middle Eastern organizations might enhance their performance and development. The discussion within this literature review of a variety of concepts related to the management of volatility has led me to argue for framing this organizational issue as one of "agility management": and this is the terminology I adopted with research participants. In addition

I argued for structuring agility management by different temporal phases of engaging with volatile markets.

With this in mind, the next chapter explains the methodology of a qualitative case study strategy to explore issues related to management of market volatility in order to build a rich understanding of this context (Creswell, 2014). The advantage of adopting a case study approach is to capture the experiences of operating in high volatile market like the Middle East. In next chapter further details of the case study methodology will be explained; including how it will be elaborated (through an additional round of engagement with senior managers) to generate actionable knowledge, and specific proposals for organizational improvement.

Chapter 3: Research Design

3.1 Introduction:

Chapter 1 described an issue of management practice (i.e. the organisation of the Middle East operations of an agribusiness) that required improvement in the context of increased market volatility. A review of the literature in Chapter 2 argued for framing this issue as a challenge of improvements in agility management, and suggested a temporal structure to such management (i.e. preparing before, responding in the moment and learning after market volatility events). The implications for the empirical work of this thesis are: (1) to build a deeper understanding of this complex situation in order to (2) generate proposals for management action to improve this situation. Creswell (2014) argued that qualitative research involving researchers and participants working with multiple forms of data is capable of generating such rich understanding. This whole approach is founded on the social constructivist idea that managers hold subjective views of the meanings surrounding the organisations in which they work; and that these meanings are negotiated (or constructed) in social processes (Creswell, 2014). Consistent with this philosophy, the empirical work of this thesis will involve working with managers in *AgroFirm* to co-create: (1) a rich understanding of the problem area; and (2) proposals for action. Thus I needed to work with organisational evidence in a research process that allows interpretation and negotiation of the meaning of the phenomena (Creswell, 2014).

The context of this research was *AgroFirm* in Middle East. It represent an existing bounded system (Creswell, 2014) at a specific period of time between 2012-2015. The organisation of the data generation and interpretation process is that of a qualitative case study research design involving in-depth data collection of multiple source of information gathered from multi-sites at *AgroFirm*. Ahead of engaging in the case study qualitative research I identified the place and time for the case, I set the research objective, I planned to generate different forms of data for a detailed understanding of the addressed phenomena and subjected these data to thematic analysis. These findings were used to co-produce (with senior managers in the case company) an actionable framework and a list of actions that upon implementation by *AgroFirm* would enhance their management of volatility in the Middle East.

3.2 Research Design:

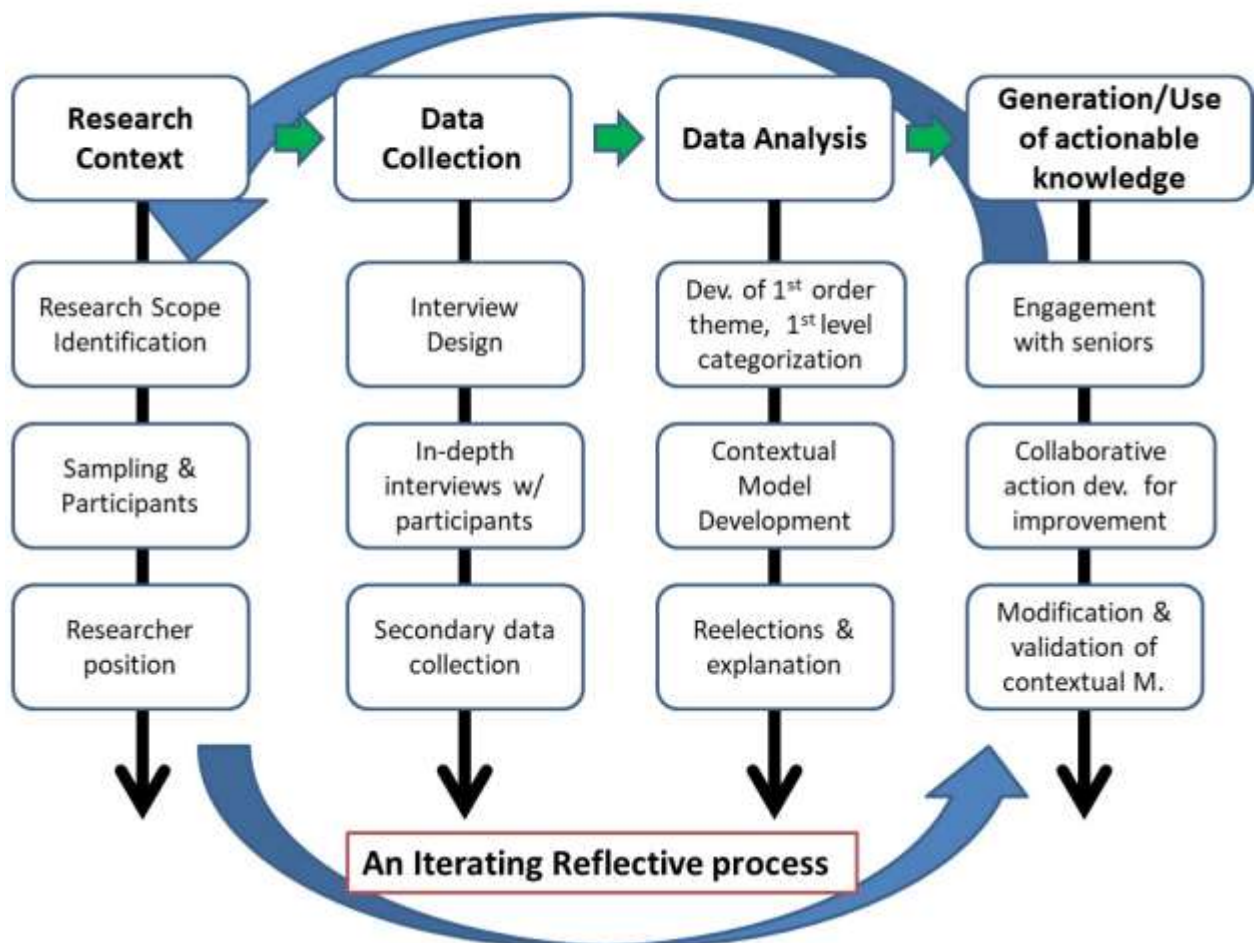
This study has been designed to generate actionable knowledge that addresses an important work-based problem at *AgroFirm*. As the focal researcher, I orchestrated available knowledge (presented in the literature review chapter) and in the field generated data with the research participants through a co-inquiry approach (Greenwood & Levin, 2007). As per Ramsey (2014) my "action" is manifest in this thesis in two ways. The first is "mapping the terrain" in a process of co-production with research participants. And the second is "testing the plausibility" findings by co-producing the actionable framework with senior managers, and building a consensus for action with them.

The explanation of the design starts with the research context where it supports understanding the positions of the involved actors (Easterby-Smith et al, 2012) in the study. It discusses the scope of the case study and how it is set out; the research participants introduced, and the researcher's positioning in respect to the project explained. A section on data collection shows how the interviews were designed and executed with the participants, and describes the collection of internal documents to complement the interviews. Such diversification in data collection supports in gaining rigor and securing relevance to various stakeholders in the research project (Huczynski, 1992). The coding routines for qualitative data analysis are described and an explanation given of how the themes emerging from the analysis supported the development of an actionable model for the effective management of market volatility. Creswell (2014; 184) explained that coding "involves aggregating the text or visual data into small categories of information, seeking evidence for the code from different data bases being used in the study, and then assigning a label to the code". The last step in the research involved the production and use of actionable knowledge. This step was managed through collaborative work with senior management at the case organization and resulted in proposals for action to overcome diagnosed issues and challenges. With this process of collaborative work with research participants I managed to learn in action and to co-produce (with research participants) actionable knowledge at the end of the research project (Coghlan & Brannick, 2010; Coghlan, 2011).

The research design is expressed figuratively in figure 3.1. The arrows reflect the iterative exchange of ideas between the literature review and the generated data that together comprise the research analysis. This interplay between the emerging empirical themes supported the

identification of recurring issues, confirmed their relevance and deepened the understanding of them (Eisenhardt and Martin, 2000). The coming next page shows figure 3.1 representing a summary of the research design.

Figure 3.1: Figurative summary of the research design process.



In summary, the methodology for this research project was chosen in order to build a rich picture of the organizational challenges of the case studied company in the face of market volatility. Furthermore, the research adopts an action orientation in seeking to change management practices and in having the people who are most likely to be affected by the proposed change are being involved in co-production, review & validation and later implementation (Easterby-Smith,

2012). In practical terms the research comprised three phases. In the first phase I have identified a sample of knowledgeable employees at the case studied organization with whom I will hold semi-structured interviews. The second phase involved the analysis of these interview data, allied to the framing from the literature review (chapter 2), in order to create an actionable framework. The third phase involved sharing the actionable framework with senior management at the case studied organization for feedback and validation. The output of this process was an action list whose aim was to re-design the management of the Middle East operation in the face of market volatility. The whole research process is shown schematically in figure 3.1 with the iterative nature of the research activities (Easterby-Smith, 2012) represented by the circular arrows. In its critical engagement with knowledgeable participants, this research is consistent with a social constructivist epistemology (Easterby-Smith, 2012).

3.3 Research Context

The study is focused on the agribusiness industry and the Middle East market where volatile conditions prevail. The research is concentrated on a specific period of time: three years between June 2012 and June 2015, and was undertaken within *AgroFirm*, a multinational organization that is headquartered in Switzerland and operates all across the world, including the Middle East. Three sites were approached for the generation of empirical data, including the headquarters in Basel, Switzerland, the Middle East regional office in Amman, Jordan and *AgroFirm*'s local organization located in Cairo, Egypt. The reason behind choosing the headquarters as part of the research scope was that all strategies, operational processes and formal managerial practices are designed, developed and cascaded from there. Most of the senior management selected as participant in the production of actionable knowledge are based at the headquarters and are empowered to propose, validate and implement actions for improvement at *AgroFirm*'s Middle Eastern sites. The main generation of field data, however, came from the regional organization in Amman, Jordan and local one in Cairo, Egypt. Both of these sites are operating in volatile markets and their participation is thus considered essential for the research project.

All the selected interviewees were employed at *AgroFirm* and were engaged in different functions, including business management, marketing and sales, supply chain, human resources and product development. This diversity in functions was required in order to understand the impact of market volatility across the full scope of *AgroFirm*. The volatility in the business environment had an impact on the organization's strategy towards the market, the daily operational work, the sales and marketing activities as well as employees' capabilities.

3.3.1 Purposeful Sampling

The key objective in terms of the sample of selected participants was to generate a rich data-set encompassing both functional perspectives as well as those of people operating at different hierarchical levels (corporate, regional and local). This would allow generation of sufficient insights to serve the research goal. Accordingly, purposeful sampling was the best approach to compiling the sample, since it allowed the identification of information-rich cases related to *AgroFirm* (Palinkas et al., 2015). For this reason participants were selected for the interview that had the potential to provide the most useful information in respect to the purpose of the research. Creswell (2014) explained that, in purposeful sampling, the participants in the sample are chosen to be not just convenient to the study but also to support in meeting the objectives of the research in terms of their reflections and experiences. The sample size was 13 persons coming from different sites, functions and backgrounds. Those 13 participants had diverse experience, worked in different functions and were located in various sites, as shown below in table 3.1. This table anonymizes the research participants' names for confidentiality reasons, and lists their positions at *AgroFirm* according to functional role and geographical location. The mode of interview is described as being face-to-face (F2F) meetings or through Skype.

Table 3.1: List of the research participants related to in-depth interviews.

	Interviewee name	Position	Location	Interview Mode
1	Nick	Business Management	Egypt	F2F
2	Francis	Product Management	HQ-Switzerland	Skype
3	Michael	Marketing and sales	Jordan	F2F
4	Tom	Human Resource	HQ-Switzerland	Skype
5	John	Operation Manager	HQ-Switzerland	Skype
6	Sara	Supply Chain	Jordan	F2F
7	Suzy	Supply Chain	HQ-Switzerland	Skype
8	Hary	Product Management	Jordan	F2F
9	Mary	Demand Management	Jordan	F2F
10	Jack	Business Management	Jordan	Skype
11	Pete	Business Management	HQ-Switzerland	Skype
12	Arnold	Product Management	Jordan	F2F
13	Iyan	Product Management	Jordan	F2F

*Both the cased studied organization and participants in the interviews are given anonymized names.

3.3.2 Researcher Position

It is important to mention that the researcher is an ex-employee of *AgroFirm*, having been based in the Amman, Jordan office for more than 10 years. This means that the researcher knows the culture of the organization very well, as well as the company's strategy, its operational approach and the employees who were interviewed. Having been in *AgroFirm* during the period 2012-2014, it was possible to capture observations that were then journalized for the purposes of the research, and this was of great value later for the research. The study was launched at the end of 2014 and the field data generation through in-depth interviews was accomplished later in 2015, by which time the researcher had already left *AgroFirm*. As an insider-researcher (Coghlan and Brannick, 2010) the insights gathered during employment with *AgroFirm* represented reflections that were of importance to the diagnosis of the work-based problems related to *AgroFirm* operation in high volatile market. Upon leaving the company and being engaged with the research study, a new status of outsider-researcher was adopted (Brannick and Coghlan, 2007) allowing comparison

between the previous observations and the newly acquired empirical data. This knowledge was of high value to the research and supported engagement with participants during the project.

3.4 Data Collection

To initiate the research work, ethical approval was sought both from the University of Liverpool and *AgroFirm* management. Indeed, the research project was not initiated until an extensive qualification process had been conducted and the relevant ethical approvals had been obtained. An ethical application form, ethics response form, and the information sheet to be shared with research participants were filed with the University of Liverpool ethical approval committee. In addition, written approval was sought from the responsible employee at *AgroFirm* headquarters. A good level of support for the research project was received from all of the relevant people at *AgroFirm* at headquarter and in Middle East region. The collection of data was divided into non-interview sources of information, which included the researcher's own journal, as well as internal documentary data. Interview sources comprised data generated from the in-depth interviews. Both types of data contributed to the research findings and analysis.

3.4.1 Non-Interview Sources of Information

The journal keeping was considered to be the first observations captured (during employment in the Middle East office at *AgroFirm* between 2012 and 2014). These journal entries were of value to the thesis project since they captured experiences of key events occurring at *AgroFirm* as soon as they happened and thus contained the immediate perception at that time (Coghlan and Brannick, 2010). Throughout the research finding sections in this thesis, these journal entries were referred to in order to help reflect on the various themes generated from the research participants.

Another form of data generation was the collection and analysis of the internal documentary data from the case company, which was available in written documents, reports, newsletters, videos and presentations. The business manager for Jordan and the human resource manager were consulted to gain access to this data for use in the research. Documents related to

Middle East commercial policies and the approval process for commercial terms affecting company sales in the region were reviewed. *AgroFirm*'s order management processes, which are part of supply chain system, were analysed, along with a human resources programme for employee capability development, known as Framework IV. Corporate annual reports, such as annual business reviews, corporate governance compensation reports, various financial reports, corporate responsibility reports and nonfinancial performance discussion were also reviewed, along with announcements delivered by the CEO and board directors relating to *AgroFirm*'s organizational changes and development. The analysis of these internal documentation were done through designing a table in an excel sheet where certain quotes were captured that relates to 1st level categorization. The categories were reflected later on with the analysis of the captured from the participants' interviews. It acts as confirmation or denial to the thematic analysis of the generated data.

3.4.2 Conducting the In-depth Interviews

The in-depth interviews involved participants sharing stories about *AgroFirm*'s management of market volatility, especially in the context of the Middle East. It was observed that the direction of the discussion was different for different interviewees. This diversity in the information generated was due to the purposeful sampling, and reflected the widely different experiences, functions and geographical location. A semi-structured interview was developed composed of open questions that invite participants to share their experiences. The researcher's role as interviewer was limited to setting up the interview, managing the environment and organizing the process of capturing information from the participants. This limited any influence on the participants from the researcher's side, given that interviewees were former colleagues. On the other hand, a reflexive approach was adopted when journaling the interview at a later stage, at which point the dominant themes that were shared by the interviewee were recorded. These insights were later reflected upon during the research analysis.

The interview protocol was emailed to participants before the meeting to inform them of the topics to be discussed. The interviews were conducted in English, as this is the official language for both *AgroFirm* and the research project besides the participants are all fluent in English

language. The interview protocol included seven questions in a Microsoft Word document with ample space to write the captured notes. In keeping with the obligation of University of Liverpool research ethics, a one page explanation of the objective of the research study was included, highlighting that the names of the participants would remain anonymous, explaining the time needed to complete the interview, how the outcomes of the interview would be used, and expectations as to where the study is likely to be disseminated. A consent form and the information sheet was shared with each participant to ensure that he or she were aware of his or her rights, especially in respect to the right to cease participation in the research project or the interview at any stage and without explanation, should they feel uncomfortable. Each participant was asked to sign the consent form, which was then kept with the other research data.

Regarding the design of the questions for the interviews, existing information was examined during the course of the literature review and from the internal documentary data initially accessed at *AgroFirm*, and this helped to generate insights for setting the questions. The questions addressed market volatility and its challenges for conducting business in the Middle East. To validate the choice of questions and to assess their appropriateness, they were shared with two research participants before interviews officially started. This pilot testing step (Creswell, 2014) helped to improve the questionnaire through gathering feedback and insights and ensure better engagement with the interviewees.

The first question in the interview protocol helped to set the direction of the intended discussion between researcher and participants. This first question sought to clarify the interviewee's understanding of market volatility in the agribusiness industry and its impact on practitioners. The second question was intended to generate information related to experiences and examples of managerial practices that the organization and the interviewee had followed at *AgroFirm* to manage this market volatility. With these questions in place, it was important to foster discussion with the interviewee by debating the temporal framework established previously in the literature review (Figure 2.1). Under each of the three phases of the framework there were a set of themes reflecting an academic conception of agility and its attributes (Table 2.1). The phases were explored in the interview protocol through three questions, one devoted to each phase. These open format questions triggered the participants to share experiences and stories in relation to agility, flexibility, efficiency, responsiveness, rapidity and progressive capability development. Since the

research objective is the effective management in conditions of market volatility, an open dialogue was pursued with the research participants to establish their arguments in respect to how organizations could enhance their performance and their competitive position in highly volatile market like the Middle East. Finally, learning from episodes of market volatility was, in the literature review, considered critical for organizations to manage that volatility effectively. Thus, a final question was included to trigger information addressing the development of the capabilities and capacities of the organization and its employees within market volatility.

The interview questions were as follows:

- 1- What is your understanding of market volatility in the agribusiness industry in the Middle East? How does it affect the way you operate?
- 2- What kind of strategies have you experienced from your employer upon dealing with volatile or turbulent environments? Give examples.
- 3- What preparations are usually made by your employer ahead of deciding to penetrate a new volatile market? Give examples?
- 4- How does your organization respond to volatility in terms of their operations, capability development, processes and technologies used?
- 5- How can organizations enhance their performance and competitive advantage in the Middle East?
- 6- How can learning be managed, processed and controlled in managing their organizations in volatile markets?
- 7- What role could learning play in developing the capacity and capability of the employees? Why? How can performance be improved?

During the interviews the researcher attempted to listen and to engage in dialogue when needed so as to motivate the interviewee to share stories and experiences gained while operating in a volatile environment. These shared stories and captured insights supported the later identification of recurring themes that were of high value to the research. The interviews were audio taped with the participants' acceptance and some notes were taken when needed. The audiotaped data was typed up in a Microsoft Word document to help later in conducting a thematic analysis.

3.5 Data Analysis Methods

The goal of data analysis is to identify the major themes from the empirical data that support the production of actionable knowledge related to *AgroFirm*'s effective management of volatility. The analysis of the qualitative data followed the steps defined by Easterby-Smith et al. (2012), i.e. familiarization, coding and re-coding, contextualization and then research explanation. Accordingly, throughout the data analysis a process of developing a first order theme and first level categorization was followed to produce four aggregate dimensions (cf. Gioia et al, 2013). These four aggregate dimensions became the four building blocks that supported the proposed actionable framework in relation to the effective management of volatility. Furthermore, actionable knowledge was produced upon engaging again with selected participants that are at senior level in *AgroFirm*. This actionable knowledge was used to generate a set of proposed actions that *AgroFirm* management should follow to improve the management of volatility in the Middle East.

The work was initiated by listing the various concepts identified in the literature review that were related to management of volatility. These concepts act as initial guidance for coding the themes that surfaced out of the interviews. Examples of these open codes (Locke, 2001) that were used are agility, flexibility, speed, adaptability, simplicity, resilience, changeability and absorption. The outcome was a long list of 600 first order themes. These were listed, and a similar coding approach was adopted for the internal documentary data, and resulting in 170 themes. The second step was to cluster (and then label) related first order themes. Microsoft Excel sheets were used for this process that support filtering and clustering of these themes. The first column in table 3.2 represents the code given for each interviewee. The second column related to the item number of items or statement that was captured from the interview transcripts. The third column shows the quoting of the participants, this is followed with 1st order theme column, then the 1st level categorization and finally the last column represents the aggregate dimension.

Table 3.2 illustrates in an example the headings used in the Excel sheets for data analysis

Interviewee	Item	Participants Quotes	1st Order theme	1st Level Categorization	2 Level Aggregate Dimension
0001	1	Volatility is part of my work, I work in a markets that does not have anything related to a well structured forecasting environment.	Volatility in the Middle East is dominant market environment	Managerial Practices	Agile Organization
0001	2	Small opportunities that you can pile them to get good volume	Middle East market includes a lot	Business opportunities	Environmental
0001	3	Very fast demand to be secured	Being reactive to market changes	Speed	Agile Performance
0001	4	Volatility is challenging as systems are not well reactive to immediate or sudden demands	Due to market volatility standards	Managerial Practices	Agile Organization

Then the second level aggregate categorization analysed the emerged themes in relation to any suggested concept relevant to the effective management of volatility. At this stage, there were 25 different level categories, as listed in figure 3.2. In order to develop the second level of aggregate categorization cells in excel we colour that help in the identification and analysing each category as shown in figure 3.2.

Figure 3.2 is an illustration of the different categories that emerged during the first order theme categorization process.

Absorption	Speed	Stability	Market Proximity
Agile Capability	Flexibility	Responsiveness	Resilient
Agility	Focus	Compliance	Patience
Business Opportunities	Internal Coordination	Managerial Practices	Visibility
Commitment	Mindset	Strategy	
Empirical Learning	Organization Investment	Adaptability	
Empowerment	Organization systems	Decentralization	

Furthermore, related first level categories were combined to generate four aggregate conceptual dimensions that became the building blocks of an actionable model produced for the effective management of volatility in this context. This actionable framework was the basis for

engagement with senior management at a later stage in order to develop actions for *AgroFirm's* improvement.

Figure 3.3 illustrates the coding process and the outcome of the research, starting with the generation of field data, and followed by the research findings, thematic analysis and, later, the production of actionable knowledge.

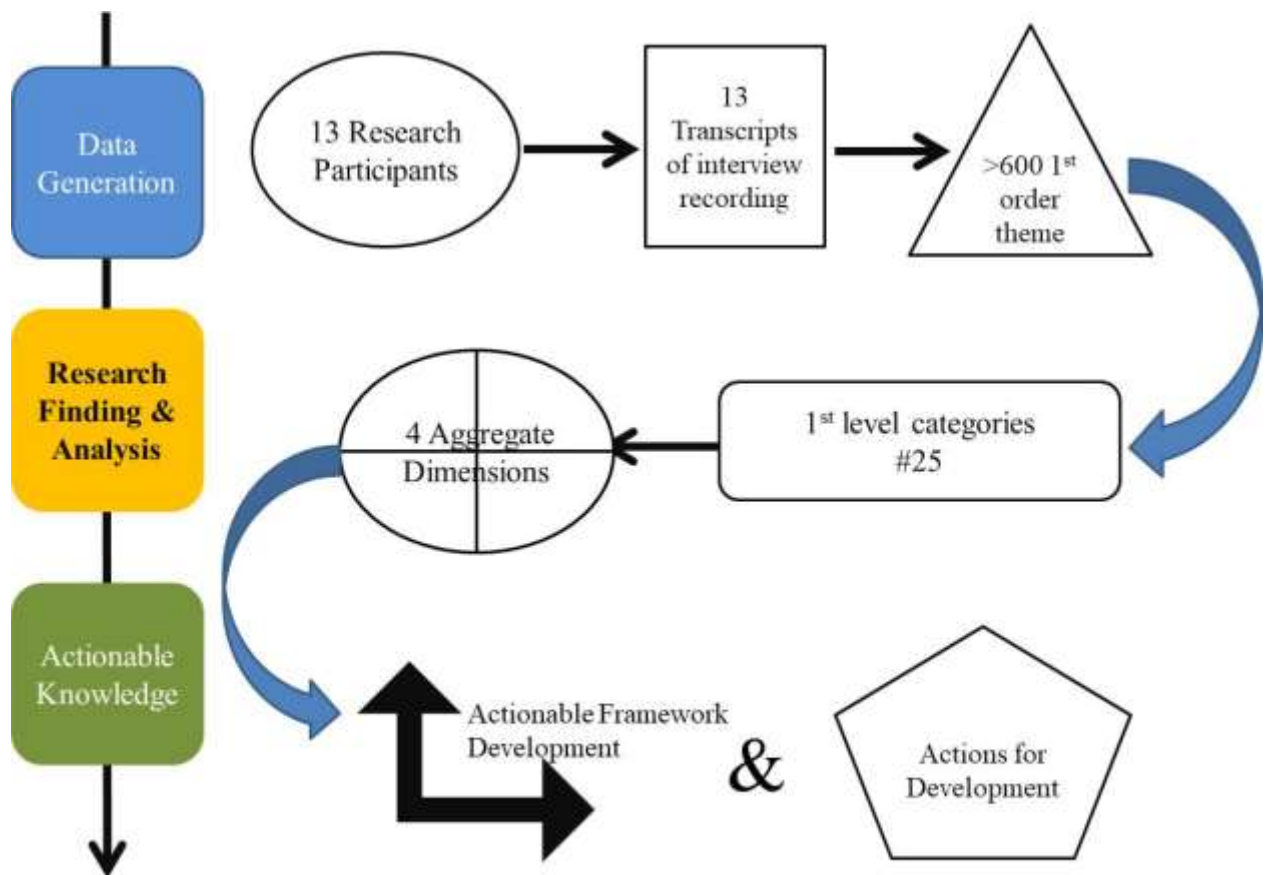


Figure 3.3 Illustration on different levels of thematic analysis

3.6 Generation and Use of Actionable Knowledge

The objective of this research project is to generate actionable knowledge that can inform proposals for actions that *AgroFirm* might take to manage the volatility of the Middle East market effectively. This required the researcher to re-visit selected research participants who are senior managers at *AgroFirm* and discuss proposals for action. The objective of this engagement with

senior management was: (1) to seek feedback on the actionable model for the effective management of volatility that had been derived from the thematic analysis of the empirical material; and (2) to work collaboratively to produce practical actions for improvements in the firm's management of market volatility (Coghlan and Brannick, 2010; Coghlan, 2011).

3.6.1 Engagement with *AgroFirm* Senior Management

As introduced above, the researcher worked collaboratively with five different senior managers based both at *AgroFirm*'s headquarters and in the Middle East to develop actions for improvement in relation to the effective management of market volatility. These seniors were chosen based on their level of engagement with the operations in the Middle East as well as their influence regarding the implementation of any actions. Another important criteria in choosing those seniors was to ensure a mix between managers based in the local organization, like Nick and Jack, and those based at headquarters, like Pete and Francis. The fifth selected senior was Mike who is currently within top management in *AgroFirm* and sets the corporate strategic direction. Mike was previously the head of the Europe, Africa and Middle East section, and possesses deep experience in the Middle East markets, having lived and worked in Egypt, and having visited Jordan, Iran and other Middle Eastern markets many times between 2006-2010. He is therefore considered highly experienced in strategizing and organizational management.

Table 3.3: List of senior management engaged for further discussion about proposed actions

	Participant Anonymized Name	Function	Location and Seniority	Meeting Tool
1	Jack	Business Management	ME, Medium	Skype
2	Mike	Business Management	HQ, High	Phone
3	Francis	Asset Management	HQ, Medium	Phone
4	Mary	Supply Chain Management	ME, Medium	F2F
5	Nick	Business Management	Egypt, Medium	Skype
6	Pete	Business Development Management	HQ, High	Skype
7	John	Operation Manager	HQ, Medium	Skype

*Both the case studied organization and participants in the interviews are given anonymized names.

The engagement with senior management was organized through face-to-face meetings (F2F) or on Skype. Research findings from the in-depth interviews were shared and the actionable model related to effective management of volatility in Middle East was presented. A number of questions were devised to facilitate an open dialogue with these senior managers. The discussions and feedback was of high value since it offered modifications to the actionable model and supported engagement with the proposed actions for improvement. After each meeting, minutes were shared with the individual senior managers in order to get their comments about the produced actions and to agree an implementation plan. The evaluation of the proposed actions took place across a timescale that exceeded the time allocated for this research. Therefore, the contribution of this thesis is articulated in terms of the revised actionable model, and the feasibility of the implementation plan. Only early observations are reported regarding the actual implementation.

The questions that were addressed to *AgroFirm* senior management were as follows:

1. What is your comment on the proposed actionable framework for the effective management of volatility in the Middle East? Is it coherent and logical? Does it align with your own experience of managing the business in this region?
2. How feasible would it be for *AgroFirm* in the Middle East to apply this management model as a response to market volatility?
3. What actions are needed to support implementation within a bounded period?

3.6.2 Collaborative Generation of Actions

The collaborative approach followed throughout the study proved to be motivating to the research participants and supported the development of actions for improvement. High levels of engagement were observed from the research participants in respect to the co-development of proposals for action (Bushe and Kassam, 2005). The positive environment among the participants culminated in support for a plan to implement the proposed actions within *AgroFirm's* Middle East operations.

The outcome of the meetings with senior management was the modification of the actionable model to fit *AgroFirm's* needs and market approach. In addition, several proposals for action were generated to help the Middle East offices, including Jordan, Egypt and Iran, to progress in terms of effective management of market volatility. These actions were discussed for implementation through the action planning process. Due to the time limit for this research, however, the implementation of these actions was not covered in this research. As a research-practitioner, the researcher consistently recognized the importance of achieving the meaningfulness, goal relevance and operational rationality (Shrivastava, 1987) that is essential for the development of compelling managerial context and actions for *AgroFirm's* development.

3.7 Structure of the Following Chapters

The aim of this DBA research project is to co-produce actionable knowledge for the Middle East operations of an agribusiness in conjunction with managers responsible for that operation. The overarching research question that guides this objective is as follows:

How can companies achieve effective management of volatility in the agribusiness industry in the Middle East markets?

The next chapter presents the research findings generated in the course of the fieldwork. The chapter starts with an introduction to *AgroFirm* where the issues facing the organization are diagnosed based on the data generated from the in-depth interviews. Special attention was given to the management of the Middle Eastern *AgroFirm* local operations in Jordan, Egypt and Iran, where the challenges surface in different functions including marketing and sales, supply chain, product development, financial management and human resources. The information generated from the participants provided a solid foundation that would help later on in the research analysis. Chapter four concludes with a vignette taken from the Iranian operation that showed how market volatility distracted from the implementation of *AgroFirm's* strategic ambition in the market. It also highlights how essential it is for multinationals in the Middle East to manage volatility effectively. Chapter five proceeds with the research analysis to identify the four building blocks of the actionable model that were shared with senior management for the development of actionable knowledge. In chapter six the outcome of the engagement with senior managers is discussed and actions proposed to support the local organizations in terms of effective management of volatility are explained.

Chapter 4- Research Finding

4.1 Introduction

This chapter presents the case study findings in respect to *AgroFirm*. This case study represents a rich picture of the organizational challenges of operating in a volatile environment. Various internal documentary data are used in order to explain the challenges faced at *AgroFirm's* Middle East regional office. Later on in chapter five I present a thematic analysis of the practitioners' experiences, stories and insights derived from the interviews.

The complexity of managing in this environment was raised throughout the interviews with the research participants. Different research participants from different functions encountered various challenges that are described in this chapter. The main challenges were related to internal coordination, decision-making and proximity to volatile markets. The interviews that I conducted with 13 participants' employed by *AgroFirm* in Middle East and at global headquarters with the investigated internal documents implied an awareness of the need to adopt agility management practices. It was evident from the interviews that experiences varied by organisational functions. The ways in which market uncertainty and agility management impinges these different account functions at *AgroFirm* is illustrated at the end of this chapter, with an account of the specific country case for the *AgroFirm* Iranian market. This example aims to illustrate the challenges facing *AgroFirm's* management in dealing with uncertain environment and the way they tried to overcome these challenges.

4.2 Introducing the Case Company – *AgroFirm*

This section builds on the introduction given to the case company *AgroFirm* in chapter 1 and is based upon corporate documents reviewed during the empirical research. These documents included: *AgroFirm's* annual reports, commercial policies, order management and processes, human resource documentation and internal announcements.

AgroFirm's global strategy is to deliver both seed and crop protection products to diverse developed and emerging markets, including the Middle East. *AgroFirm* developed a strategy to respond to mounting economic and environmental challenges, including market volatility (Annual Business Review 2011). A total of 50% of their sales originated from emerging markets like Brazil, Russia, China, Africa and the Middle East. The company's top management were aware of the challenges of market volatility but still believed that emerging markets were a place to grow the business. Accordingly, they decided to take several strategic initiatives to mitigate risks and provide effective management of market volatility.

In 2010, top management at *AgroFirm* decided to institute a new management system known as service business support (SBS). The reason behind introducing SBS was to enhance top line growth, provide standardized procedures and maintain high profitability. SBS is considered a robust platform that should transform the way *AgroFirm* delivers business support services in Finance, HR, Legal and supply chain services. SBS employed around 1900 experts in back office support (CEO press release, 2009). The plan for the company was to deliver shared services through regional centres, as well as to draw on the expertise on third-party providers. Despite the fact that SBS was implemented fully in 2010, its impact on the way employees operate surfaced only in 2012 with the roll out of the integration strategy. This integration strategy was announced at the end of 2011 and entailed the merger of the crop protection division and the seeds business to deliver complete solutions to customers (*AgroFirm* Financial Report 2011). The objective was to deliver a combined offer through a single sales force capable of supporting these solutions both technically and commercially. This integrated global commercial operation of both divisions sought to enable operational synergies, achieve cost savings from procurements and supply chain efficiencies (*AgroFirm* Annual Business Review 2011). The introduction of both SBS and the integrated strategy was claimed by board of directors as being part of a process to foster agility among functions and across the organization, as evidenced by a nonfinancial performance discussion paper issued by *AgroFirm* in 2014.

In addition to the SBS and integrated strategy, the third initiative was the announcement by the CEO of a commitment to grow sales in the Africa & Middle East region from 250 million dollars in 2012 to \$1bn in the coming 10 years. The Africa & Middle East ambition was also to invest over \$500 million for the recruitment and training of over 700 new employees (CEO

Announcement, 2012). In addition, distribution channel networks, logistics and local production facilities were developed in collaboration with local partners so as to increase access to technology for growers. Finally, in 2015 *AgroFirm* at a global level announced the Accelerated Operational Leverage (AOL) programme that should enable the company to produce profitable growth and make it more agile and resilient to challenges and market volatilities. All four of these initiatives at a global level were approved for implementation by the executive committee at *AgroFirm* in order to gain momentum and mobilize their resources to deliver their strategy effectively to various diverse markets across the world. In practice, however, their impact differed from one region to another and from one country to another. Throughout the interviews with the research participants, they argued that the above-mentioned corporate initiatives prompted continuous internal changes within a limited period of time that disturbed their operations and resulted in confusion amongst various functions, processes and systems. The next sub-section details these operational elements of *AgroFirm*'s organization in the Middle East.

4.2.2 Introducing *AgroFirm*'s Middle East Organization

AgroFirm's CRO (Country Representative Office) has been established for more than 15 years in Amman, Jordan to serve the Middle East markets. The current team is highly professional with deep experience and a strong network within the Agribusiness industry. Seven different local employees were interviewed for this research project, including representatives from business management, supply chain, marketing & sales, and product development. The participants were Mary and Sarah in supply chain, Michael in marketing & sales, Jack in business management, Arnold, Iyan and Harry in product development. Nick, who occupies a senior position in business management and who is based in *AgroFirm*'s local Egyptian organization was also interviewed.

During the last five years, *AgroFirm*'s CRO organizational structure and operational systems have changed a lot due to the introduction of the integrated strategy for crop protection and seeds. This integration took more than one year in the Middle East and resulted in the emergence of processes and systems that were known within the company as “WOW” (Way of Working). *AgroFirm*'s Middle East commercial policies note that each country must have a written and communicated commercial policy governing both the internal and external ways of working.

The objective and principles of WOW were rolled out to employees by several methods including training courses, videos, written media and announcements by the CEO and board of directors. During the training course for “Framework IV” that was released in 2013 it was mentioned that “to be successful we have to embark on new ways of working and thinking that encourages our entrepreneurial spirit”.

The second initiative that influenced *AgroFirm*’s Middle East operational work was SBS. In this reform, most of the decision making was transferred back to corporate headquarters. Since the CRO office no longer has any financial department or human resource function, employees were asked to refer every single transaction or decision back to headquarters in order proceed with business delivery. The Middle East commercial policy clearly stated the following: “Any decisions concerning changes to List Price, Terms of Payment or Commercial Terms and Conditions have to be initiated by Commercial Teams through Request Forms submitted centrally to Commercial Operations to trigger the approval process with relevant stakeholders” (FM Commercial Policy, 2013). The SBS implementation took around two years to complete and it managed to centralize most of the decision-making at the AME (Africa & Middle East) management committee level, which is based at headquarters. Tom from HR highlighted that it was the right approach to centralize decision-making at the start of rolling out several corporate transformation initiatives. He added that unfortunately such control of power was retained at the corporate level and had not been released back to countries, even four years after announcing the initiatives, which further entrenched the centralization process across the organization.

The CEO’s strategy announcement related to growth of Africa and Middle East sales to \$1bn in 10 years was initially considered motivating internally, and within the market. During the interviews with the participants from the Middle East office, however, they viewed this goal a burden, having in mind the complexity of the management for these high volatile markets. Those participants included Iyan from product management, who commented, “The investment should not be big as we will face difficulties and blockage in the market”. Nick from business management argued, “The more I see volatility in our markets, the more it is getting difficult for multinationals to operate”. From finance, John criticized *AgroFirm* by noting, “My current employer is in a zigzagging format where we grow, we then shrink and then we grow again”.

Research participants based in the Middle-East showed dissatisfaction in the interviews regarding corporate strategies and business initiatives. They suggested that the internal complexity and challenges they are facing are not serving the delivery of the business, and that they do not comprehend the volatility in the Middle East market. They argued that the influence of market volatility is much higher for employees positioned at the front line compared to those at headquarters. For them, the Middle East organization is not flexible enough in its managerial practices, nor responsive to changes and market challenges. They added that *AgroFirm* is not efficient in delivering customers offers because of strict and rigid corporate procedures and processes across the world. In the coming section, these critical challenges facing *AgroFirm* in the Middle East are described in greater detail.

4.3 Management of Market Volatility within *AgroFirm*'s Middle East Office

The work-based problems that faced *AgroFirm* in the Middle East were explored with the research participants in the interviews. This section shares the challenges and advantages encountered internally at *AgroFirm*'s regional office due to following the new strategies and managerial practices. The three critical aspects were issues in internal coordination among functions and across territories the decision-making processes between local offices and headquarters and the influence of market proximity to *AgroFirm*.

From the point of view of the interviews, although *AgroFirm*'s Middle East office had succeeded in a few cases to manage market volatility it had failed in many others, thus losing many business opportunities within the area. Jack, the business manager in the Jordan office highlighted the double-digit growth achieved between 2012 and 2014, which he attributed to regional office teamwork and commitment towards the market and the strategy. Jack added that the commitment of the company towards the Middle East was reflected by having a sustainable investment in regional offices in Jordan, and locals in Egypt, Iraq and Iran. Despite the high political risk faced in Lebanon, Egypt, Iran and Iraq, the company did not downsize their investments except in Iran, due to sanctions imposed by the international community which significantly disrupted the market. Even so, although *AgroFirm* downsized their staff it did not completely close its office. Nick from business management, based in Egypt, argued that the corporate commitment and sustainable

investment in Middle East was based upon the market potential in the Middle East. Nick added that without such commitment the organization could pull out from these markets and focus their resources on other more stable emerging markets in Latin America or Far East region. He observed that this is what most multinationals in the agribusiness sector had done in the last decade where they seized their operations and pulled out from the market. Nonetheless, *AgroFirm* decided to maintain its operation in the Middle East. In the following subsections, I expand upon the key management challenges for maintaining a significant presence in the Middle East that were discussed during the interviews.

4.3.1 Management across Functions

Most of the interviewees showed an awareness of the importance of internal coordination to manage challenging operations. Participations working in the supply chain functions in particular discussed the importance of maintaining coordination between the front line offices and headquarters to support operations and prevent business discontinuity. Mary, from the supply chain function, argued that she needed to be well connected with various functions and to utilize this internal network to be able to come up with reactive solutions that could support product delivery to insecure market zones like Iraq. In product management, Arnold discussed the importance of synchronization of activities across functions for the success of new launches in the Middle East. John and Nick in business management had experienced many failures in delivering sales orders due to internal miscommunication, and ineffective coordination between various functions. The company lost several business opportunities like government tenders, which sometimes resulted in piling up stocks because of delays in deliveries ended up missing the sales season. Tom, from Human Resources, suggested in the interview that in order to achieve high internal coordination between functions and to reduce any potential confrontations, there should be alignment of business targets with similar objectives across the organization. According to Jack, such an alignment of objectives would prevent any conflicts between supply chain, finance, product management and/or marketing and sales. Jack added that, unfortunately, in the three years of his business management, while *AgroFirm's* regional Middle East organization was commercially driven this was not so much the case with headquarters. Between 2011 and 2014, the headquarter's concerns were focused on executing SBS, training on wow and the new

integrated strategy, with the objectives of process standardization and enhancement of communication between headquarters, regional and local offices.

Even the Middle East commercial policy enforced the importance of internal coordination through having, for example, a “European Logistics and Order Management (ELOM) Team which internally is taking care of the order processing and logistics in close relation with CLOs (customer liaison officers) which are the operational point of contact of Channel Partners” (*AgroFirm* Commercial Policy, 2013). The company CEO stressed on many occasions that the success of the company relies on the dedication of its people and the way in which they work together through the year (*AgroFirm* Business Review, 2011). In the 2013 annual review report *AgroFirm*’s chairperson also stressed that the unity of purpose and commitment of employees are reflected in their coordination and low employee attrition rate.

4.3.2 Headquarter-Regional Office Relationship: Implications for Decision-Making

The company had the global vision to manage the business and operations in a standardized approach encompassing both stable markets like Europe and the US and emerging markets as is Africa and the Middle East. This was reflected in the introduction of the SBS within the organization. Many operations enforced in emerging markets were considered rigid and not appropriate for these volatile markets at all. Tom, from Human Resources, commented that with the introduction of SBS and the standardization of processes, the local organizations lost a lot of their flexible processes and operations at different levels or in different functions. He explained that the management of multinationals should always run business on standardized frameworks to enhance their cost efficiency and achieve economy of scale. John from finance, however, reflected that such standardization worked against enabling the agility that is required in turbulent business environments. As such, this approach from his point of view led to centralization of decision-making at headquarters, with the result that there was little direct exposure to markets.

Suzy, from supply chain, highlighted the example of supply chain logistics, which is considered a key enabler for agribusinesses. *AgroFirm* decided in cooperation with consultancy companies to streamline order management processes that operate across multiple hubs around the world. In this joint project, the company decided to transform order management to enhance agility

and speed up the supply chain. Accordingly, the supply chain department introduced global processes to order management that were considered best in class to achieve cost reduction, streamlined operations, and better control over orders. In practice, however, once this was in place, markets in volatile countries started to face a lot of challenges and actually lost flexibility and responsiveness as a result of the standardization.

Mary, also in supply chain, complained about the way the company manages its Middle East supply operations. She noted that the current systems were not reactive to market demands since they were set in a structured framework to fit stable markets like Europe and the US. She commented that the company was losing many business opportunities due to delays in responding or adapting to market needs and requirements. Many times, she said, she has to go around the system or run manually to be able to deliver products on time or within specifications. She approaches the production planners directly and bypasses those functions that are set in middle. The set of procedures were made for Europe but do not apply easily in volatile markets like the Middle East.

For Michael, who was responsible for marketing and sales, his challenges centred on forecasting since the market was continuously changing at the time headquarters needed its three year forecast. He argued that centralized decision making meant that he was no longer empowered when he was in negotiations with the customer. The current Middle East commercial policy deferred decisions to functions based at headquarters. All changes in product allocation, business offers and payment terms needed to follow a process in which a request was sent via order management that then required approval from four or five functions. This tendency for centralization at headquarters resulted in failing to have policies for delegation of authority that could support a local decision making and avoid delays in gaining business.

Tom, from HR, explained in the interview that, with SBS, the management at corporate level controlled most of the business operations. He added that the creation of layers between front line employees and those at headquarters led to complexity to the extent that every single decision needed to be taken at the level of head of Africa & Middle East. Such complications increased volatility but from inside the company rather than from the market. Sarah, in supply chain, commented that this bureaucratic approach resulted in rigidity in offers, delays in deliveries and losses of many business opportunities. Those who were in marketing and sales that were facing

their customers found it difficult to manage volatile markets through the standard processes and strict governance set out by headquarters. On several occasions *AgroFirm* Middle East manager, Jack, requested more flexibility to be able to deliver their products effectively. Jack's view about effective management in the local organization was "You need a company that authorizes people with trust and is bottom up driven and not top down". Management at headquarters kept centralizing decisions through SBS and established many processes that ensure compliance and delivery of corporate strategies. For Jack, it was about the organization's mind-set, in that headquarters was not willing to give authority to local offices.

On the other hand, the business manager, Nick, had another view and he commented that "Multinationals are obliged to follow certain standards and they will be handicapped in terms of compliance upon operating in Middle East." That's what *AgroFirm Middle East* clearly highlights in its commercial policy: "In order to comply with any local legal requirements (i.e. competition law), any implementation or adjustment of Guidelines, pricing, exceptions and relevant commercial terms changes require prior approval". Accordingly, management established appropriate measures to ensure full compliance with all corporate governance related to legal requirements, regulations and internal documents. Such a framework might work efficiently in non-volatile markets but not necessarily for the Middle East region.

4.3.3 Proximity to Market in Volatile Environment

As discussed earlier, market volatility in the Middle East is driven mainly by political unrest, economic instability and unclear legislation. A fourth valid element suggested by Nick during the interview, however, related to the lack of good statistics on the markets in question. Actually, the Middle East is highly fragmented given that it constitutes more than twelve countries, with some countries, like Iraq or Syria, divided into various areas that are difficult to access. This fragmentation presents the challenge of not just getting the right information but being able to comprehend, analyse and disseminate it. *AgroFirm*, with its Middle East regional office in Amman, Jordan, and other local offices in Iraq, Iran, and Egypt, was able to unlock the challenge of market understanding through deeper market comprehension. Arnold, from product development, emphasized the fact that "to gain competitive advantage in volatile markets you need to be close to the market by having local people in these markets trying to understand turbulence

and being able to read or expect or even anticipate the market in future”. He even challenged management at headquarters by suggesting that managers should visit these markets to understand better their context and inform better decision making. Michael, in sales, argued that the advantage of having local people in volatile markets is the better and more rapid understanding of changes. Through market proximity, the company will have a better chance to adapt to uncertainty, as it will have better visibility, Michael added. *AgroFirm* strength was through its local people versus competition who were detached from the market and its changes, according to Iyan from product development. For Jack, the drawback of an absence of market proximity was the fact that you must rely on channels like the distributors and retailers to get information. In this case, opportunities might be lost, as distributors would always be keen to serve their interests over *AgroFirm*’s. Francis, from headquarters, gave the example of *AgroFirm*’s Iraq office where the company has one senior field expert who supported him to understand the market better in terms of its trends, product needs and regulation. Finally, Tom praised the local organizational setup, highlighting that, with local organization and the right local leadership; the company would have a better grasp of the market.

It is worth mentioning here that *AgroFirm* maintained its sustainable investment in local organizations in Middle East for more than two decades. Looking to the history of the organization, the office of Jordan was established in the late 1990’s, while the organizations in Egypt, Iraq and Iran were established in the early 1990s’. In the intervening two and a half decades, the number of employees decreased or increased based on the internal corporate strategy or the external market uncertainty that pushed *AgroFirm* to downsize its presence. Nonetheless, these regional/local offices kept functioning until now despite market volatility. For *AgroFirm*, market proximity was one of its core strategies in addressing the Middle East. In the coming section and subsections, I highlight the effect of the challenges of market volatility on different functions operating at regional level in *AgroFirm*’s offices in the Middle East.

4.4 Implications for Firm Functions for Management of Market Volatility at Regional Office Level:

Middle East market volatility, as Nick highlighted, as a member of the management committee of the Africa & Middle East region, is a situation that has characterized the last two decades and is expected to persist in the coming ten years. During the interviews, research participants from *AgroFirm* explained that this highly uncertain market environment would never change and dealing with it thus became part of their managerial practice. The high political uncertainty in several markets surrounding *AgroFirm's* Middle East regional office (currently based in Jordan) is considered the key driver of business volatility in the region. Despite the civil wars in Iraq and Yemen, the company still delivered products to their customers in these two markets. Even when land borders in Iraq are blocked, the supply chain functions can, as related by Mary and Sarah, try to find another opening by sea or air-freight. The *AgroFirm* Middle East team actually grew their market share to more than 9% in the markets they were responsible for, despite the political and economic unrest resulting in exchange rate instability, international community sanctions and market cash liquidity shortages.

At *AgroFirm*, different functions tackled volatility differently. Throughout the interviews, with participants from different functions, it became evident that volatility management manifested in different practices in different functions or job responsibilities. These are explored next.

4.4.1 Supply Chain Management

Interviewees from the supply chain department claimed that *AgroFirm's* Middle East offices frequently succeeded in delivering products to customers despite market volatility. They argued that they have utilized all available tools related to forecasting, production and logistics. They even tried to find hubs for filling and packing of pesticides, e.g. a facility in Greece that could serve their market efficiently. They added that, at one stage, they discussed having a local warehouse in the Middle East located in Jordan or Egypt that could increase their responsiveness to market demands. Mary, Sarah and Suzy, from supply chain, explained the challenges they face regarding governmental tenders in Iraq and UAE. In these tenders, the officials at the Ministry of

Agriculture required short delivery dates and requested hugely complex sets of documentation from headquarters and European certification bodies. They also levied harsh penalties if *AgroFirm* failed to deliver on time. They all agreed that the current processes inside the company were set by headquarters and not aligned with market conditions or tender requirements. The market requires a highly reactive supply chain able to respond immediately to sudden business opportunities, while *AgroFirm*'s systems and decision-making were currently rigid.

Corporate policy is to manufacture to order, and they never stockpile for any market. This requires local organizations to have between two to three years of product forecasting which is not possible in turbulent business environments. Accordingly, in many cases, the local team in the Middle East goes around the system or processes and uses their internal network to produce products even if orders are not in place. They have to be "solution providers", according to Mary, and should be able to explain to their colleagues at headquarter reasons for not following the set processes to capture the unexpected opportunities. The main tension between the corporate and Middle East offices concerns the rigid processes that were designed for cost savings alone. For *AgroFirm* Middle East it is about delivering their sales budget. Mary argued that supply chain and logistics should be more rapid and flexible in delivering their products if they are to be considered an agile organization. For her, agility is manifested through the rapid response to any opportunity. It is about investing more in market responsiveness as well as enriching internal coordination across various functions. Sarah discussed that such enrichment is achieved by educating decision makers in management on the Middle East market so that they have a better understanding of its volatility challenges. In this way, their mind-set might change and be ready to adapt to the market needs and requirements. If the organizations really wishes to succeed in the Middle East market, they should not copy their European model but tailor a specific one to the local markets.

On the other hand, participants stressed in the interviews the importance of having a collaborative internal atmosphere that supports finding solutions to sudden unexpected events surfacing in volatile markets. Those in the supply chain tried, within their limits, to have a collaborative network that promotes internal collaboration to overcome challenges within the organization's process and ways of working.

4.4.2 Product Development

According to Arnold, product development usually takes a long time before results are evident. Such investment requires company commitment as well as a suitable long-term strategy. The high market turbulence in the Middle East imposes a high degree of uncertainty on the team responsible for product development since there is a lack of market information, unclear policies and regulations set by governments, and strict protocols developed by multinationals. Arnold, Iyan and Harry from product development highlighted the continuous disruption of their plans in the Middle East due to corporate changes in the last five years. The introduction of SBS, the integration strategy and the one billion dollar growth ambition for Africa & the Middle East has led to internal turbulence and unbalanced product development. It appeared to them that the company's conflicting strategies fostered a reduction in resources and dried out its pipeline. Accordingly, the impact on product development was that the product development team was continuously engaged in meeting management requests that were considered overlapping and inefficient.

Tom, in HR, complained that the complex layers *AgroFirm* had developed in the last five years resulted in "the centralization of decision making in our company, as every decision needs to be taken by the head of territory or by head of region on some time and that's another key of complexity that brings volatility internally". Such complexity delayed company development internally and externally as it lost its flexibility and its responsiveness.

To deal with the volatility in the Middle East, *AgroFirm's* employees must be able to manage sudden changes. For example, in the regulatory sphere, especially in Saudi Arabia and the Gulf Countries (UAE, Oman, Qatar and Kuwait), governments might change product registration rules overnight. For example, lists of banned products (e.g. pesticides containing specific active ingredients) have occasionally been changed with immediate effect. *AgroFirm* lost several million dollars in a few years due to some of their products being banned, and many cases of shipped products were returned for not being compliant with newly-issued unexpected regulations. *AgroFirm's* regional team found difficulty in managing such volatility effectively and rapidly such volatility due to low empowerment and slow processes where they were not able to take timely decisions in expediting orders before decisions at MOA are effective.

On the other hand, Francis, a senior product manager at headquarters, argued that the integrated strategy had enriched the company offer and fostered its agility. The company currently

has an enormous number of active ingredients that creates a more agile offer than is available from the competition. With such a long list of products at *AgroFirm*, the teams at product development are capable of mixing and match to develop value added offers to their customers. Francis also added that the organization's agility is reflected in its technology and approach to different markets. The resources that *AgroFirm* has in local organizations enhance its agility, and it can easily manoeuvre because of this deep understanding of the Middle East and the power of its footprint in these markets. The slow and restricted process that currently exists, however, delays the introduction of this wide portfolio and limits opportunities to capture business in highly dynamic markets like the Middle East. In addition, when the portfolio does not pay out then it is reduced so that it does not impact negatively on corporate gross profitability. Local product managers in the Middle East office complained that, on various occasions, the company has phased out products that were good sellers in the Middle East but not of importance to key markets in Europe.

4.4.3 Financial Management:

In the annual business review for 2011, *AgroFirm's* corporate management emphasized new business models that provide tailored solutions, including finance management, were considered critical for success in the future. Headquarters argued that with the introduction of SBS “the business delivering services in finance, procurement, information systems and human resources are all based on common, scalable tools and processes. These are supporting the implementation of our integrated strategy and enabling us to respond with greater agility to volatile market and economic conditions” (Annual Business Review, 2011). Jack, from business management, had a different view, however. He claimed that corporate management had failed to enhance coordination with various functions including finance. According to John, on many occasions, the management tried new solutions but the return was not fast enough or did not really face reality, resulting in these solutions being dropped and a return to pre-existing managerial practices. The reality for him was that these Middle East markets are difficult and risky, and thus it is time to adapt systems to suit and not just keep dreaming that they are easy. John concluded that the moment management focuses and realizes market needs then flexibility becomes essential. For example, when a currency in a country is being devalued there should be better offers to

customers that support achieving budgets. Unfortunately that is not happening as functions like finance management and marketing and sales are not coordinating together and not being able to align to one direction in countries due to different annual budget they have from corporate. Such different agendas between functions results in confrontation and conflicting interests at a time when there is a need to have common targets that support better management of financials in markets with high volatility.

Nick, being in Egypt, where the currency has not been stable in the last three years, argued that his financial team were working on contingency plans to minimize the risk and to adapt to market terms of treasury and banking systems. For him it was not an easy exercise, as it requires a lot of flexibility from management or even going around the system to manage the business or capture opportunities.

Another aspect highlighted during the interviews was the lack of empowerment for key functions like finance management and marketing & sales. The commercial policies set by top management in the Middle East mentioned clearly that any decisions concerning changes in pricing could be initiated only through a request form sent to headquarters for review and approval by key stakeholders. A process that might take from between 7 to more than 90 days based on the case in question, the availability of various stakeholders to take decision and the interest of headquarters in the deal. Various participants commented in the research that such rigid financial processes resulted in high levels of organizational rigidity within a highly dynamic volatile market. For Nick such complexity in decision-making was the result of decrease in the risk appetite of multinationals towards the Middle East markets. He added that the more market volatility emerges the more it would be difficult for multinationals like *AgroFirm* to operate.

4.4.4 Marketing and Sales Management

There are more than twelve employees supporting marketing and sales activities for *AgroFirm* in the Middle East. There are also strict commercial terms that are considered important in channel management. These commercial tools influence the price setting process, customer negotiations, payment terms and other commercial activities. There are two factors affecting negatively marketing and sales in realizing their budget in the Middle East. These factors are the

enforcement of *AgroFirm* top management to adapt commercial terms and the external market volatility in the Middle East that was discussed in previous sections. The global internal factor, which was the result of the introduction of SBS and the integration strategy, wherein the power of decision making was relocated from local organizations to headquarters. Tom in HR explained that, at the beginning of the transformation, back in 2011, the management said that to support “the transformation they needed to centralize to move things forward. But at a certain point of time they need to give back power because on execution the effectiveness will only happen at local level”. To date, however, management has not released back power but has kept it centralized.

Michael, who described *AgroFirm* as a “dinosaur”, since it is huge and slow in movement, reflected on the implications of the centralization of corporate decision making. He said that it is getting more and more difficult to manoeuvre in volatile market places. Michael challenged the fixed processes that exist at his employer and complained that it is not easy to change in order to be able to serve the turbulent environment in the Middle East. Moreover, Jack who is leading the Middle East office, highlighted that colleagues in headquarters do not understand his market enough and they are continuously pushing their existing standards that are functioning in Europe. Jack argued that having a local organization in the Middle East drives competitive advantage, but without a clear delegation of authority that empowers such investment, many business opportunities will be lost.

Furthermore, Tom explained that there are barriers at *AgroFirm* that delay delivery of sales related to conflicting departmental goals and priorities. Currently, employees in finance are risk averse and supply chain is driven by cost effectiveness, while those in marketing & sales should deliver their sales and achieve their budgets. Such misalignment delays decision making and consequently inhibits business delivery.

4.4.5 Human Resource Management

Tom, from HR in headquarters, had unique views regarding agile organizations in volatile markets. He argued that market information generates work and actions that employees should accomplish to deliver company objectives and strategy. Yet, this requires clarity on processes and effective ways of working, supported by empowerment from management to front line individuals.

At *AgroFirm*, however, the centralization of decision making results in the organizational inefficiency and redundant processes in the Middle East. For him, there is an urgent need to scan key processes within the organization to challenge their relevance and eliminate useless practices. The confrontation at *AgroFirm* was that management was not ready to supply more freedom to operate in volatile markets and for current operations to gain flexibility and be agile. Conversely, *AgroFirm* increased control over decision making and thus ended in lowering its efficiency.

This influence of the centralization of decision making at headquarters was obvious on the different functions within *AgroFirm*. This lack of empowerment to the Middle East office affected the various functions differently depending on their responsibilities and the rigid process designed for them. The research participants discussed that they tried to overcome these challenges through going around these processes by using personal networks with their colleagues at headquarters. On many occasions they failed, however, and lost business opportunities as a result. John, from finance, argued that, for an organization to gain agility, it requires to high level of decentralization where trust and empowerment is granted to experienced leaders. Unfortunately, this is not the case for *AgroFirm's* Middle East employers.

Tom truly believed that management should be courageous and give back power and autonomy to *AgroFirm* Middle East managers. Mary agreed with Tom's point of view by arguing that management is not given enough space for commercial people to manage the business effectively. Sarah also complained that employees at headquarters are micro-managers who follow details on how actions are being done instead of setting strategies to manage volatility efficiently and gain business in these markets. That is what Tom also reflected as he discussed that there is an urgent need for senior leaders to provide the framework of operations but to make local organizations at *AgroFirm* lead the business within the provided framework.

In conclusion, the participants in the interviews from different functions argued that *AgroFirm's* management believed in the Middle East market and had maintained investment in the local organization despite the high market volatility. They believed that while *AgroFirm* managed volatility in some cases, it had failed to gain business opportunities in many other circumstances. Participants' backgrounds from different functions reflected the current challenges within *AgroFirm's* operations and way of working. The way in which these different functional

positions come together in one office is illustrated in the following section concerning how *AgroFirm* managed volatility in the Iranian market.

4.5 *AgroFirm* Iranian Case Description:

The section illustrates how *AgroFirm*'s Iranian operations are brought together in one national office based in Tehran and the issues faced when operating in a market considered volatile. It reflects all the above-mentioned issues and shows how the headquarters tried to manage these issues differently.

In Iran, until 2012, *AgroFirm* had its own local organization with more than 21 employees delivering more than \$21 million of annual sales. Once international sanctions were imposed against the Iranian government, *AgroFirm* had to completely cease their business operations in order to remain compliant with international laws. Management overnight decided to downsize *AgroFirm* legal entity to become a representative office with only two technical people. Immediately, *AgroFirm* Iran lost its previous connection with the market, lost its customers and started to face difficulties in delivering their products to the destination. In addition, headquarters established rigid decision making processes that guarantee compliance governance. With this situation in place, the local organization in Iran lost its agility to deliver their offers and this resulted in a steep decline in sales over a three year period. In 2015, with the political signs that sanctions against Iran would be lifted, *AgroFirm* decided to reinvest in the market, recruiting more than ten employees from different functions and developing their local organization again. Nick, during his interview, views Iran as being the country that has everything right for investment, in terms of oil, population, water and openness to adapt technology. Nick also added, "Reflecting on the Iran case where my employer downsized in 2012 and then re-invested in 2015, such inconsistency should be avoided as much as possible. Increasing or decreasing the number of employees might always happen in volatile market but you have to make it in a way as most sustainable as possible. I think this is so difficult in an environment like ours where the strategy of the company is also moving and this might make impact on the way we operate". The Iran example showed for *AgroFirm* how local organization that enhances market proximity plays a vital role in granting agility and responsiveness to business opportunity.

Pete explained that there was a lot of learning that could be done from the Iranian experience where an entrepreneurial mind-set is needed in terms of taking risks and maximizing business opportunities. It is about gaining short-term prospects and at same time building solid platforms with local organizations to drive sustainable strategy and growth.

The impact of these changes on sales development are shown in table 4.1 for the period 2012 to 2015. These and other metrics illustrate the challenges faced by an operation based in high volatile country. Later on in chapter 6, I will share how the company look forward to improve their position in relation to changes in their structure, market approach and strategy in light of the findings of this study.

Table 4.1 Metrics for the Iranian case that illustrate the impact of market volatility and internal issues of *AgroFirm* on the business development.

Metrics	2012	2013	2014	2015
# of Employees	21	2	2	4
Sales \$mio.	32	4.0	6.0	8.0
Market-share %	10.5	2	3	4
Loss in \$ transfer outside country	0.0	(2.0)	(4.0)	(4.0)
# of sold products	52 items	24 items	17 items	17 items
# of customers	3 Private market 1 governmental	2 private market	2 private market	
Collection Terms	120 days	50% in advance	50% in advance	50% in advance

Table 4.1 shows the challenges that *AgroFirm* faced during the period of 2012 to 2015 where sales dropped from \$32mio to \$4.0mio. because the company was not able to get paid by customers due to sanctions and difficulty to transfer currency outside the country. In addition, items that were produced in USA were dropped in line with the US economic sanctions policy. These constraints led to reduced sales and market share in several segments. Customers that were not able to pay

their invoices, or those that are under sanctions due to their relationship with the government, were also not able to trade with *AgroFirm*. Even the payment terms offered to existing customers changed due to financial concerns. The management at headquarters decided to proceed with immediate downsizing and reduced number of employees from 21 to 2 technical persons. They closed the main Iranian office and rented a small one as part of reduction in expenses. In chapter 6, the management set new strategy and have a forward looking ambition following a decision to adopt an agile approach.

4.6 From Rich Picture to Thematic Analysis

The data generated from the interviews with participants supports a better understanding of the problems (Churchman, 1976) and enables the development of a rich picture showing how *AgroFirm* serves Middle East markets. This picture suggested that the company was ineffective in managing volatility in the Middle East and that deeper analysis is required to identify solutions.

The following chapter presents a thematic analysis of the qualitative data in order to build actionable knowledge addressing the challenge of market volatility for *AgroFirm*. In this analysis, the first order themes are processed through first level categories to generate second level aggregate dimensions (cf Gioia et al, 2013), as explained in chapter 3 under section 3.4. These aggregate dimensions are used to propose an actionable model for the effective management of market volatility in *AgroFirm's* Middle East markets. This actionable framework was subsequently used in the engagement with *AgroFirm's* senior managers in order to develop proposals for action that might lead to the better management of market volatility.

Chapter 5: Analysis of Research Findings

5.1 Introduction



Chapter five presents the thematic analysis of the empirical data leading to the development of “first order themes”, “first level aggregate categories” and “second level aggregate dimensions” (cf Gioia et al, 2013). This analysis supports the production of actionable knowledge concerning the management of market volatility in the Middle East in respect to *AgroFirm*. The generated data was captured from internal documentary data of the case company and in-depth interviews completed with the research participants employed by *AgroFirm*. The analysis focused on several ideas of what market volatility means to *AgroFirm* practitioners and how they managed their business in the context of market uncertainty. It captured key ideas related to their internal operations that represented the current managerial practices of *AgroFirm*’s organization.

This chapter explains how the coding process is used in the analysis of the qualitative data generated in the project. As per Creswell (2014), coding involves the aggregation of the scripted interviews into small information categories that represents the core themes of the data. This includes a description and illustration of: (1) the production of “first order themes”, (2) the clustering of these themes into “first level categories” and (3) the combination of these categories to make the “aggregate dimensions”. These aggregate dimensions became the building blocks for the creation of an actionable model for the effective management of market volatility in this context. In this manner, the research analysis set the foundation for actionable knowledge that was shared with *AgroFirm*’s senior managers for feedback and for collaborative actions setting to progress better management of market volatility within the Middle East.

Throughout the research analysis, an iterative process was followed, entailing continual moving between the ideas identified in the literature review, the data generated from internal documents, participants’ interviews and the developing conceptual arguments (Miles and Huberman, 1994; Locke, 2001). A Microsoft Excel sheet was used to manage this process, with the data entered including initial literature concepts, empirical data from the interview transcripts and internal documentary data. The empirical data worksheet included several columns like interviewee code, participants’ quotes, first order theme, first level category and second aggregate

dimension. Table 5.1 illustrates the headings of the worksheet that were used to move from quotes to first order themes that were then clustered to develop first level categories, with these in turn being combined to produce an aggregate dimension.

Table 5.1: The flow of empirical data in the research analysis and its layout in the Excel sheet that was used.

Interviewee Code	Participant Quotes	1 st Order Theme	1 st Level Category	2 nd Level Aggregate Dimension
				

The analysis followed an “abductive” approach that involved both academic ideas and field data material (Van de Ven, 2007, Alvesson and Ka'rreman, 2007)). The next sub-section explains this process, and the outcome of the research analysis, in detail.

5.2 Research Analysis: First Order theme and First Level Categorization

The data generated from the in-depth interviews was examined in order to understand how *AgroFirm* manages volatility in its Middle Eastern market. Interview transcripts were read in detail in order to produce a long list of statements that were considered as the initial (first order) themes related to volatility management. This list comprised 618 first order themes, and was listed in one column of an Excel sheet.

The second phase of the data analysis involved the development of first order categories. The first order themes were reviewed to identify similarities in ideas coming from the research participants, with similar first-order themes being grouped to form a cluster. Each cluster (i.e category) was given a label which expressed higher order theme. These categories were related to market volatility and were given a label that summarized the idea underpinning the cluster of first order themes. The labelling of each category came either from concepts in the literature or those identified by the research participants as important for the management of market volatility. For example, the category labels used that were initially identified in the literature review included: “Flexibility” that was referenced lately by Garcia-Alcaraz et.al (2017); Chan et.al (2017);

Kamasak et.al (2017) and Ramanathan et.al (2018), “Agility” as used in last three years by Hazen et.al (2017), Appelbaum et.al (2017) and Sherehiy & Karwowski (2014) as well as “Adaptability” argued by Dubey et.al (2018). While categories that emerged inductively from participant interviews’ included “proximity” mentioned 24 times throughout the interviews by nine participants, “commitment” argued by 5 participants 19 times and “mind-set” discussed 33 times by 10 participants. More information on first-level categories and the frequency with which they were noted in shown below table 5.2. The above mentioned first level categorization phase progressed the work towards the second phase of the analysis.

Table 5.2, below, lists the first level categories to illustrate the outcome of the research analysis at this stage. The column on the left shows the initial codes of the first level categorization while the middle column reflects how much it was discussed by participants and the right-hand column shows the number of participants that referred to it.

Table 5.2: List of 1st level categories with the number of 1st order themes and the number of participants that shared these themes.

First-level Categories	No. of 1st order themes	No. of participants generating these themes
Absorption	7	One participant
Adaptability	15	Five Participants
Agile Capability	62	Twelve Participants
Agility	30	Seven Participants
Business Opportunities	15	Eight Participants
Commitment	19	Five Participants
Compliance	2	One participants
Decentralization	7	Three Participants
Empirical Learning	51	Thirteen Participants
Empowerment	13	Seven Participants
Speed	14	Seven participants
Flexibility	53	Thirteen Participants
Focus	6	Three Participants
Internal Coordination	27	Ten Participants
Mind-set	33	Ten Participants
Organization Investment	28	Ten Participants
Organization Systems	61	Eleven Participants
Market Proximity	24	Nine Participants
Resilient	2	One Participant
Responsiveness	19	Seven participants
Stability	1	One participant
Strategy	23	Six Participants
Trust	3	Three Participants
Visibility	3	One participant
Managerial practices	34	Eleven Participants

As one illustration of the construction of the first-level categories, Table 5.3 shows some of the first-order themes that constitute the category of “Flexibility”. A total of 53 different first order themes conveyed from 13 different research participants were clustered to create this category. For reasons of space, table 5.3 just lists some substantive examples from these 53 first order themes, rather than the whole list. Taken together these first-order themes offer a rich explanation of the category "flexibility" (in this context).

Table 5.3: Example of “flexibility” for first level categorization development.

First Order theme	First Level Category
Companies’ flexibility lie in being flexible in its management mentality, in its production approach and supporting services. For example, close market manufacturing sites or multi access points of entry for products in countries like Iraq.	“Flexibility”
Companies’ should be flexible and be able to set priorities while updating these priorities according to changes in the market due its volatile conditions.	
Companies’ should be flexible towards its customer approach based on their strategic importance.	
Companies’ adopting flexibility in terms of processes should support managing Middle East market volatility. The processes should be reflected in flexibility in supply chain, logistics, credit management and decision making.	
During the market penetration and responding phase companies should be able to manoeuvre to win the market.	
Companies in volatile markets should manage business opportunities through their flexible approach.	
Flexible budgets are considered a requirement for companies operating in volatile markets.	
Flexibility in human resource management lies in contracting with experienced calibres that are mobile and accepting short term contracting.	

5.3 Research Analysis: Second Level Aggregate Dimensions

The third step in the analysis of research data involved the combination of first order categories into more abstract aggregate dimensions. These aggregate dimensions represent the key underlying themes from the empirical data that should explain the influence of market volatility on the management of *AgroFirm*. This section explains how different categories were combined together

to reflect an aggregate dimension relating to the effective management of market volatility. This final stage in the coding operates in a nonlinear iterative manner (Locke, 1996).

The process for generating these aggregate dimensions proceeded in the following. Different combinations of first-level categories were combine in an attempt to process a coherent set of aggregate dimensions (cf. Gioia et al, 2013) For example, categories that represented organizational structure, the level of investment, proximity to market and company strategy, with these all being combined under an aggregate dimension called “agile organization”. Other categories related to organizational operations and processes were combined to form an aggregate dimension called “agile performance”. A third example was categories related to mind-sets, skills and experiences and thus these were combined in another dimension labelled as “agile capabilities”. A fourth aggregate dimension was related to the external market drivers and their impact on the organization operating in volatility. This aggregate dimension mainly included two of the first level categories: volatility drivers and business opportunities in the Middle East. This fourth aggregate dimension was labelled “market driven organization”.

Figure 5.1, 5.2, 5.3 and 5.4 summarise the data structure (cf Gioia et al, 2013) from first order themes, first level categories and second-level aggregate dimensions. Through this coding process, the analysis acquired a higher level of abstraction progressing from empirical data to developing aggregate dimensions (key themes) from which actionable knowledge could be created.

Figure 5.1 shows the data structure for the aggregate dimension of “agile organization”, and included *AgroFirm*’s strategy, its managerial practices, market proximity, systems and level of investments towards the Middle East market. Figure 5.1 illustrates the corresponding data structure.

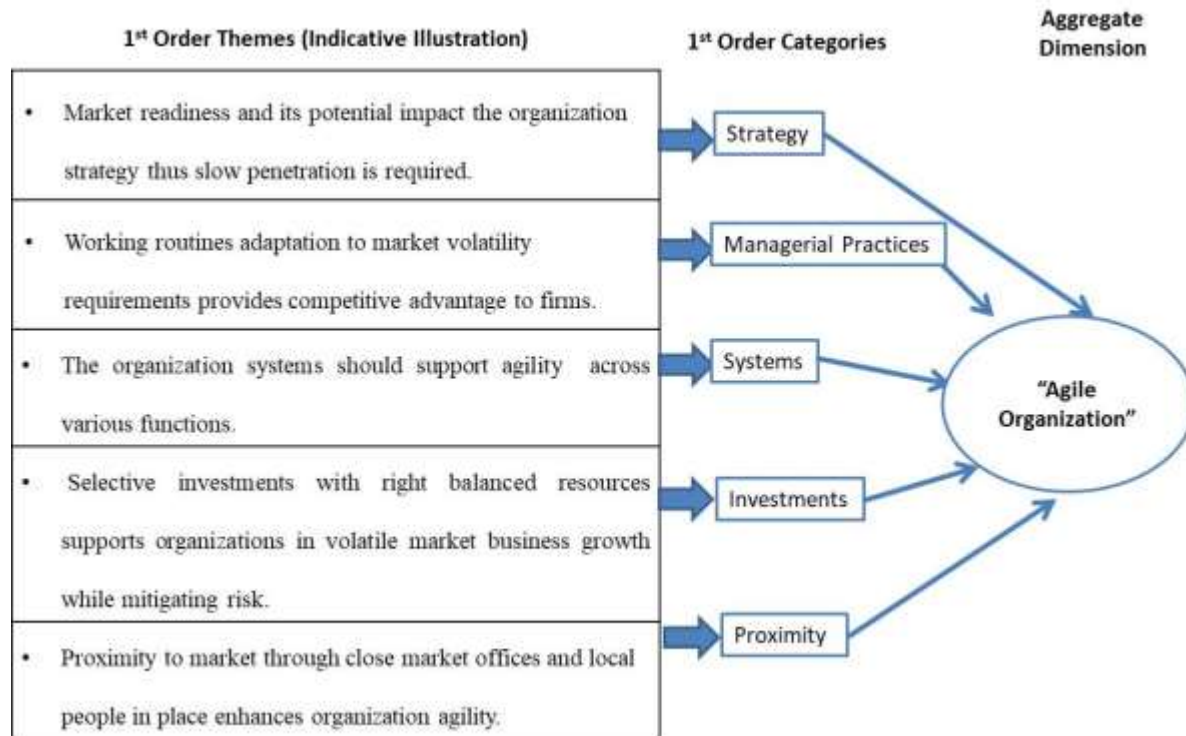


Figure 5.1: The development of the “agile organization” aggregate dimension

The second aggregate dimension is "agile performance". The left hand column in Figure 5.2 includes an indicative selection¹ of the first order themes from the research participants that reflected processes and operations within *AgroFirm*. The middle part shows the first level categories that were formed from the clustering of the first order themes: “flexibility”, “agility”, “speed”, “resilient”, ”responsiveness” and “adaptability”.

¹ Full list available as the MS-Excel spread sheet used to managed the coding process

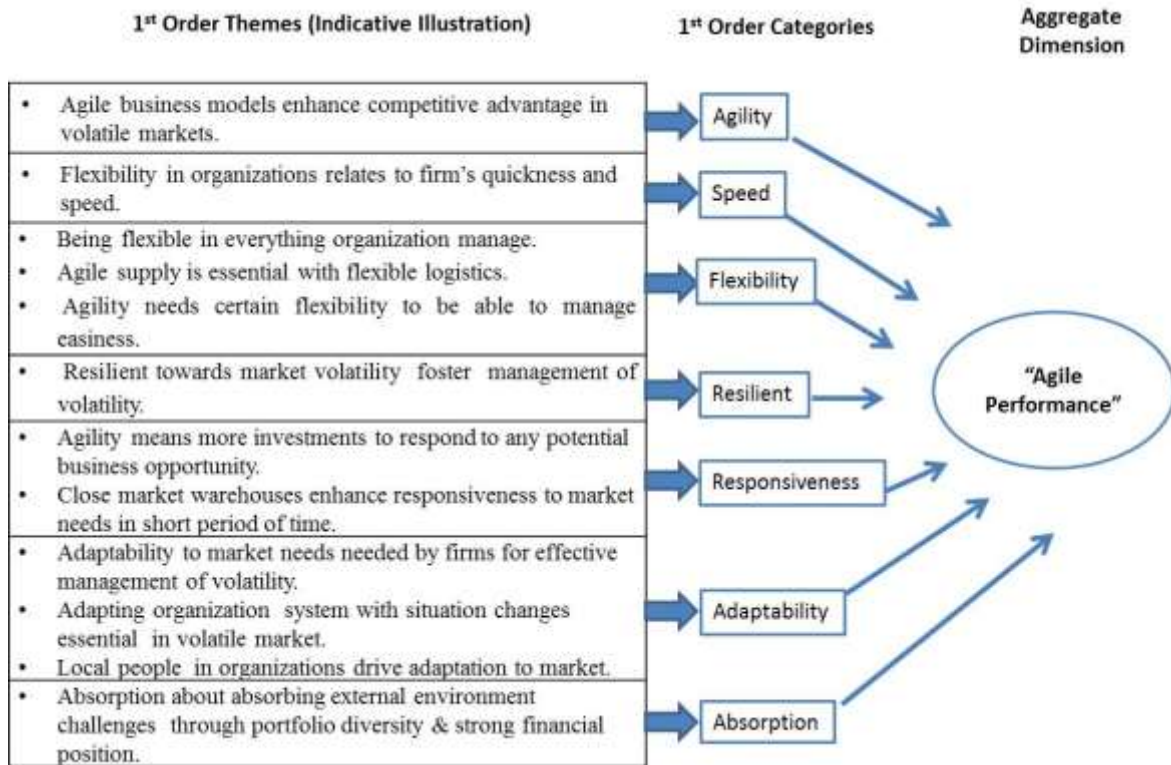


Figure 5.2 The flow of development from first order themes (indicative illustrations) to first level categories and the later aggregate dimension of “agile performance”.

The third aggregate dimension illustrated in Figure 5.3 shows the corresponding structure for the aggregate dimension of “agile capabilities”. This dimension captured the importance of capabilities for the organization to manage volatility, and its constituent first level categories were: employees’ “mind-set”, “values”, “commitment”, “focus”, “patience”, “empirical learning” and “internal coordination”.

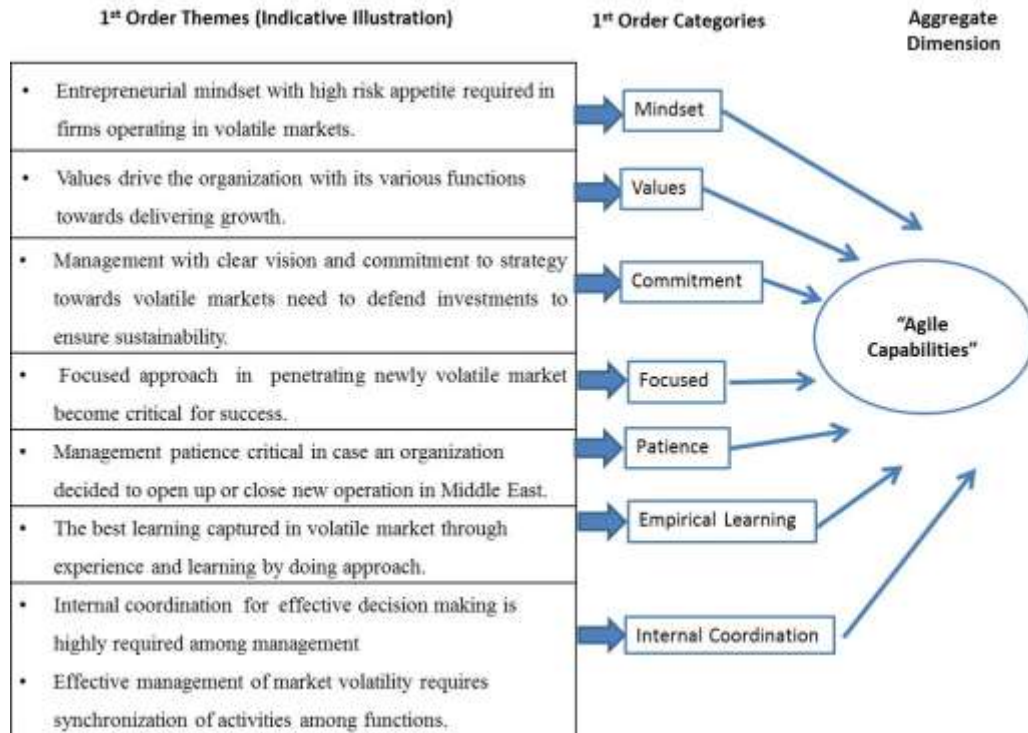


Figure 5.3: The development of the “agile capabilities” aggregate dimension.

Finally, Figure 5.4 shows the data structure for "Market Driven Organization".



Figure 5.4: The development of “market driven organization”

Some other first order themes that were developed to first level categories did not fit in any of the aggregate dimensions due to their low usage and the minor importance afforded to them by the research participants (see Table 5.2). As a result, these were judged to be of low importance and discarded from further analysis: for example “compliance”, “stability”, “trust” and “visibility”. These categories were abandoned to ensure a focus on the most important aggregate dimensions.

5.4 Explanation of Second Level Aggregate Dimensions

One of the objectives in this research analysis chapter is to overcome the challenge of mixing up terminologies when referring to agility and its synonyms. Previously, the literature review showed that academics have used these various terms interchangeably without positioning each term as a distinct concept. The same challenge is observed with the research participants upon going through the interview transcripts. The interviewees constantly used the term “agility” in reference to other terms like flexibility, adaptability, speed, and responsiveness. These subsections attempt to avoid confusions in terminology and to clarify the meaning of these aggregate dimensions: particularly in relation to the participants’ functions and to the context of discussion during the interview.

5.4.1 “Agile Organization”

The aggregate dimension of "agile organization" represents the strategic intent of the organization towards the volatile market. In this it draws attention to the development of their agility strategy. Donaldson (2001 cited by Sherehiy, Karwowski and Layer, 2007) argued that organizations should not set their structure and strategy in isolation of the industry’s trends or market environment. Sarpiri & Gandomani (2017) discussed how the adoption of agile methods that is triggered by market changes requires dramatic organizational change. The stronger the relationship between the organization’s approach and the market conditions the more the organization can become adaptable and gain agility. This is what Mary tried to explain from her experience that volatility in the Middle East is so challenging that it requires the organization to be reactive to these unexpected demands. Being agile in organization strategy and structure to will enhance its readiness towards management of market volatility. Participants agreed on the fact that

bureaucratic structure will result in delays in decision making and thus losing market opportunities. According to Michael's view organizations like *AgroFirm* should be set up in a way that can support growth in sales and market-share. It is also about the level of penetration within each market, since in some markets in the Middle East the organizational structure should be deep enough to reach customers whereas in others it should be agile enough to touch base with this specific market. Such selective strategies in various markets within the Middle East will support agility management for *AgroFirm*. Volatile markets distract *AgroFirm's* plans since they make forecasting and business anticipation irrelevant and this leads to business discontinuity in extreme cases. The organization needs to have a structure that is efficient enough to be able to manage strategies that support serving Middle East market and adapting to its changes. This market volatility influence requires from the organization to continuously adapt their organizational structure and strategy towards these volatile markets.

5.4.1.1 *AgroFirm* Agile Strategy

In any organization, the corporate strategy usually influences the regional and local organizations. The same applies to *AgroFirm's* Middle East office, where Francis said that the effectiveness of the management of volatility in this turbulent market affected the way business has been conducted in the last five years. In the 2011 annual report, the CEO said:

“Our strategy is clearly focused on enhancing top-line growth while maintaining a high level of profitability. Our growth aspiration is embodied in our target of increasing global market share by an annual average of 0.5 percent across the combined business. In our first year of integration, we already made progress on this objective and achieved an increase in global market share”.

Both John and Francis argued that the impact on the local organization was to be focused towards entering new markets and increasing market-share in places where *AgroFirm* already exists in the Middle East. They added, for example, that *AgroFirm's* Middle East market has around twelve countries and that while in some countries there should be a footprint like Iran, Iraq and Egypt, in others the company uses distributors. There should always be a balance between the

business potential of the market and the risk taken within a country. Besides, the strategies for effective management in turbulent market conditions should include contingency plans to be able to mitigate risk when needed. These contingency plans lie in having market exit plans in the event that uncertainty in a certain selective market gets extreme. John from finance advised that:

“To gain competitive advantage from the beginning they should have a clear go-to-market approach where they need to study the market well, to balance what is market potential versus market readiness. In many cases, you see that the market is big but not ready. What I mean by market readiness as well is then the selective approach, how to go there. Normally, you start by importing to a country, and then you plan setting up an office, and then set up a big organization. In case you misstep and you want to go faster then it is very dangerous. Otherwise, you should make a detailed analysis of the situation and implications. You need to respect the rules of the market. Then you need to consider as well the exit plan, because you never know what will happen”.

Accordingly, organizations operating in the Middle East should have clarity regarding their strategies towards the market. According to the research participants, this is initiated in the deep understanding of markets ahead of penetrating them to check their readiness. It is important in volatile markets to move slowly and follow specific steps whilst penetrating it. The logical steps are to initiate the business via a distributor, then hire local people, set up a local office and later fully pledge a sales organization. Furthermore, the strategy should be followed by proper managerial practices and steady organizational investment, as will be discussed in the following sub-sections.

5.4.1.2 *AgroFirm* Managerial Practices

Empowerment of middle management for the effective management of volatility was argued by Dove (1992) and lately by Bjornar (2014), where they highlighted that immediate and accurate decision-making can be enabled by informed and empowered middle managers. In this study, the empirical data from the in-depth interviews also revealed that middle managers, who

play a critical role in establishing the managerial practices of the company, should be highly agile and capable and should motivate their followers across the organization.

The managerial practices at *AgroFirm* are known as ways of working (WOW). They are highly influenced by the overall strategy that the corporate management has established, including the "integrated strategy", the SBS and lately AOL. Each country in the Middle East has written and commercial ways of working that reflect the governance between internal and external stakeholders. From the headquarter's point of view, the ways of working in the Middle East market are tied into three key strategic objectives: manage cash, local investments and channel compensation.

The local employees at *AgroFirm's* Middle East office have different views as to the corporate approach to their managerial practices in the market place. Most of the interviewees mentioned that the ways of working should foster more agility. As the market demand in volatile markets changes daily due to many unexpected factors, the managerial practices should reflect the corporate strategy and at same time be adaptable enough to operate effectively during uncertainty. Unfortunately, Michael, Sara, Harry and Iyan complained that the ways of working (WOW) at *AgroFirm* are so rigid that they are not compatible with market conditions and needs. For example, forecasting, where corporate headquarters requires three year forecasts to secure production or manufacturing, but where customers in Middle East cannot forecast quarterly per annum their needs. Pete, who is senior management at headquarters, confirmed that the Middle Eastern market could not be managed with standard European processes and controls. His experience in Africa and Middle East showed that he should expect daily changes in his plans and he should be agile towards these changes. Accordingly, companies planning to penetrate the volatile Middle East market should review their processes and operations ahead of time to ensure enough agility to drive business.

This is the current challenge at *AgroFirm*, where a strategic review of the organizational structure in the Middle East is needed for the effective management of volatility. Francis, for example, complained about being able to find the balance between *AgroFirm's* ways of working and market changes. He argued that "Middle East volatility is impacting negatively my day-to-day routine work as these changes are not convenient and impacting a high cost on the business". Suzy

and Mary agreed about the importance of being creative and thinking out of the box to find solutions that could result in delivering the business despite company rigidity.

5.4.1.3 *AgroFirm* Organizational Investment in Volatile Market

The literature review highlighted that, in an uncertain environment, organizations should limit their investments to reduce the chances of discontinuity. In this case study, however, we observed that *AgroFirm*'s management was willing to invest more as they were able to see the potential and the opportunities. During the annual review in 2012, the CEO of *AgroFirm* confirmed that the company will invest in the emerging markets of Africa and the Middle East over the next ten years since the organization believes in these markets and its assets not only to nourish its growing population, but also to become one of the main world food exporters. This investment in volatile markets reflected the top management's awareness of *AgroFirm*'s market proximity which is critical to advance both competitive advantage and effectiveness in the management of volatility.

Academics have argued that any agile organizations that plan to be successful in volatile environments should shift their organizational structure to one that is leaner, or more organic, and empowers middle management (Vázquez-Bustelo and Avella, 2006). Bjornar (2014) argued that such empowerment was necessary to enable decision making that addressed the management of volatility. Nick considered that the level of risk appetite for any company determines how much the company is ready to deepen its structural investment in the Middle East. From his point of view, the more the local people have a solid business case that can be sold to management, the more they are ready to invest, despite the fact that the market is volatile. Accordingly, the organizational structure differs from one selected country in Middle East to another. *AgroFirm* should be selective in its structural design towards Middle Eastern markets.

Francis praised the fact that *AgroFirm* is a multinational company, meaning that the investment capacity is much higher than for smaller companies. For Francis, it is the balance between the benefit incorporated from a selected investment versus the expected risk. He added that the benefit of having an agile investment portfolio is that choices in volatile markets are wider. De Toni and Tonchia (2002) explained that operations in firms usually reflect their ability to shift

from one investment to another easily. This is what could be reflected in terms of being selective in market in a way that supports the strategy in place.

5.4.1.4 *AgroFirm* Proximity to Markets

The competitive advantage of *AgroFirm* in the Middle East as the different regional and local offices that company had in these markets. This close presence to serve the markets better made *AgroFirm* aware of the changes, being close to their customers as well as timely updated of any new policies and regulations. Mike in the interview argued that remote management from headquarter to Middle East will not be effective in management of volatility. That's what Jack explained from commercial point of view where he expressed that absence physically from Middle East will end being controlled by local distributors. However as per Pete, contracting with employees in volatile market is a challenge where you hire at one for moment to expand business and then you're faced with political instability that push you to fire those contracted employees. Thus, human resource functions will need to come up with solutions related to agile contractual agreements that overcome the challenges of firing people upon downsizing decision like what happened with *AgroFirm* Iran organization in 2012.

Proximity to market in management of volatile market was identified during the interviews. There were little discussion about it in the literature review. Further exploration of this category was managed with seniors and discussed in coming chapters.

5.4.2 “Agile Performance”

The aggregate dimension of "agile performance" is concerned with the set of operations and processes that support the delivery of the agility strategy in volatile market. *AgroFirm* should design agile operations that enable business delivery in the Middle East. These processes are particularly important in relation to having agile logistics operations, suitable commercial policies and account management practices. In these arenas this aggregate dimension draws attention to decision making processes that facility agile operations.

The concept of agility is one that had been debated for a number of years in *AgroFirm*. This is reflected in the first-level category of "agility" which represents the different perspective held about the term *agility* itself. The interviews suggested that the participants viewed having an agile business in the Middle East as essential in the face of a volatile business environment. The research participants, in some cases, specifically used the term "agility" to describe their work in Middle East. They used other terms as well, however, that were identified in the literature as referring to, or synonyms of, "agility". For example, both "flexibility" and "adaptability" were used a lot by interviewees as reaction to the adoption of agility by *AgroFirm*, and it was important during the interviews to clarify their exact meaning. In this thesis, and based on literature review and the analysis of the empirical data, "agile performance" is described as relating to various attributes critical for the organization to manage its operations and enhance its market response to gain effectiveness in the management of market volatility. These agile attributes are the identified first level categories that were clustered to form the aggregate dimension of "agile performance".

Mary, Michael, Jack, Pete and Francis used "agility" interchangeably with "flexibility", "speed" or/and being quick several times. This strong linkage between agility and flexibility with speed reflects the definition of agility by Tallon and Pinsonneault (2011, 28): "Ability to detect and respond to opportunities and threats with ease, speed, and dexterity".

The interviewees clarified their meaning by explaining that that *AgroFirm* should adapt its approach, operations and processes to fit the needs and demands of the Middle East market. They highlighted that adapting the ways of working across functions will enhance alignment to market needs to serve it better. Michael, who complained that the company adaptation process is too slow, at a time when the Middle East market is so dynamic, noted this. He added that business opportunities are lost due to delays in adaptation. It is important to mention that "adaptability" in the literature was critical for any organization to be considered agile. The empirical data in this case study confirms the argument of Sambamurthy et al. (2007), who noted that agile performance confers the ability to adapt to environmental change and be competitive in the market place.

As for "resilience", this first level category was suggested by one of the senior participants to be of particular importance to *AgroFirm*. His views confirmed what academics argued about like Hamel and Valikangas (2003) and Sull (2009), who stated in their research that an agile organization should embrace resilience to drive business opportunities and gain agile performance in high volatile markets. Other authors have suggested that organizations embracing resilience

were ones who realized it is necessary to be able to respond to market uncertainty and volatility (Takeda et.al, 2017).

The first level category “responsiveness” also surfaced several times in the data. The participants highlighted responsiveness as a result of being agile, whereby flexibility and fast decision making will bring better responsiveness to the organization. For example, a high level of responsiveness to business opportunities in the Middle East market was identified by Pete as being important to gaining competitive advantage in volatile situations. Iyan also confirmed a similar concept wherein *AgroFirm* should react efficiently to market changes. In terms of agile performance, responsiveness relates to having efficient processes and operations that support the capturing business opportunities or the mitigation of dramatic changes during uncertainty. It is reflected by responding effectively in driving decision making process.

On the other hand, Francis challenged these notions of "agile performance" by highlighting the fact that agility imposes extra costs and there should be a trade off in specific situations. He added that *AgroFirm*, being a multinational company could be agile at the level of research and development but not necessarily at the level of the market. Smaller or generic companies are agile at the level of going to market that is in packaging, supply chain, pricing and logistics. From his point of view, the cost of being agile should reflect that benefit of agility. For example, the cost of having a warehouse located in the Middle East represents a risky investment but enhances agile performance through being flexible and responsive to market demand. Academics have reflected on this aspect by clarifying the importance of optimization versus being agile (Thomke and Reinertsen, 1998).

Similar trade-offs were cited in comparisons between functions: for example the importance of agility was noted in some aspects like product development while being rigid in many processes related to supply chain and finance. Table 5.4 sets out the views of different functions in regard to agility and interlinks these with similar ideas in the academic literature. The left-hand column mentions the name of the function; the middle column is the reflection on the function based on the participant’s experience; and the right-hand column provides references from the literature. This kind of reflection between the emerging empirical data and the literature shares how much literature informed the process of the research analysis as well highlighting the overlap between ideas from practitioners and those of scholars.

Table 5.4: Evidence of agile performance from data gathered based on function in organization.

Function	Indicative quotes from interviewees	Literature Reference Example
Supply Chain	Mary argued that “cracking the word flexibility, it means easiness in everything, quick and speed”.	Yusuf et al. (1999) suggested that agility is the successful use of competitive foundations such as speed and flexibility.
Marketing & Sales	Pete said: “For company like ours if you want to give competitive advantage then you need to put a business model that is agile enough to take short term opportunity and whether you accept those then you need to set the necessarily processes and platform in place to potentially grow”.	Hobbs (2010) “Recognition of a business environment that fluctuates quicker than conventional planning cycles, the need to sense environmental fluctuations, the need to respond using existing information systems, and organizational readiness to effect the sensing and response”.
Product Development	John commented: “The trade-off is critical between the cost of being agile and the benefit of being agile. That’s where you end up with normally the right decisions, one example regarding having inventory close to the market to enhance market responsiveness and be agile. Having this inventory will be more agile, but then the question will be what I gain from being agile if I evaluated the cost and risk I am taking in terms of having this inventory in the market”.	Flexibility is the ability of an organization to change or react to market volatility with little consequence in time, less effort and cost, or even performance (Bauernhansl et al., 2012)..
Human Resource	Tom explained: “Very few companies have been able to grow and keep the agility”.	Volberda (1999) explained that in practice the implementation of agility was challenging to managers.
Financial Management	John argued: “we need to look into finance capabilities that the customer is always in need of. It is important from beginning to set certain principles, because if you set too much flexibility at beginning then you might miss opportunity of creating value”.	Axson (2014) argued that companies should developed agile finance functions that identify opportunities in volatile markets through analysing risk and delivering insightful financial analytics to optimize cash and allocate capital constantly to changing market environments.

The following subsections explain the other first level aggregate categories related to agile performance (cf. Figure 5.2) and give examples of their practice by *AgroFirm*, as well as discussing the issues that *AgroFirm* had to overcome in order to achieve effectiveness in their processes and operations for better management of the Middle East market.

5.4.2.1 Flexibility and Speed in Managing “Agile Performance”

Participants in the interview explained that *AgroFirm*’s agile performance is manifested in being flexible and speedy in responding to market demands in the Middle East. The readiness of the organization for an effective response to developing business opportunities is crucial. Research participants commented that *AgroFirm* should ensure flexibility and rapidity in delivering products to the marketplace. Such readiness can be translated to having flexible systems that enable the management to take advantage of unexpected business opportunities. *AgroFirm* Middle East, according to Mary, Sara and Suzy (all from Supply-Chain) has failed to deliver to many businesses due to the rigidity of the company’s systems and ways of working.

In order for *AgroFirm* to improve agile performance, it should ensure flexibility and speed in relation to commercial terms and offers to local business partners. Michael, from marketing and sales, highlighted that every year *AgroFirm* loses many sales because of the complex decision-making processes in respect to the Middle East commercial policy. For *AgroFirm*’s Middle East team agile performance means being fast and empowered in terms of decision making to support the gaining of competitive advantage. Tom from HR confirmed the importance of empowerment for agile performance in order to gain anatomy in volatile markets. Having empowered capable people (Bjornar, 2014; Dove, 1992; Volberda, 1996; and De Toni and Tonchia, 1998) provides a basis for an organization to foster its agile performance and be able to manage market volatility effectively.

Flexibility in relation to product development is important for an agile performing organization. Arnold from the product development function argued that new product introductions in the Middle East require companies to be very flexible if they are to gain new market segments. At *AgroFirm* Middle East, however, the decision-making process is slow, since it requires a long chain of approvals from five different functions at headquarters, which delays Arnold work and new product introductions.

Some participants at *AgroFirm*, however, especially those based at headquarters viewed flexibility in relation to agile performance differently. For example, Francis, from product management, mentioned that it is about having the right balance between a long term strategy that ensures business sustainability and short term plans, which he recognized as needing to be rapid

and flexible. The company's strength lies in its product innovation capacity, which supports flexibility in adding value to the business value chain but loses it at the end of the chain. This is due to the complexity of achieving flexibility in the supply chain, financial management and business development. Participants like Francis, Nick, John and Pete argued if multinationals aim solely at being cost effective they will not be able to attain agile performance through flexibility and speed. For example in volatile markets, *AgroFirm* operates with US dollars and not the market local currency in order to prevent the risk of currency devaluation. In terms of giving credits to distributors, the company also has strict principles and is not flexible at all. *AgroFirm* cannot therefore attain the levels of agile performance of smaller companies, which can be much more successful in volatile markets because of their high flexibility.

According to Tom from HR, however, *AgroFirm* could improve their practice of flexibility by decentralizing decision making and empowering local organizations. Despite the fact that multinationals, including *AgroFirm*, will not easily release power from headquarters to local organizations the concept of agility can only be practised at a local level. Tom highlighted that the trend is usually that the bigger the company is the less agile it becomes. To develop agile performance among firms in the Middle East there is a need to empower local teams through defining clear functional roles and connections to facilitate flexibility in decision making and having the right supply choices.

The interviews revealed a linkage between agile performance and being flexible with speed in most of the operations *AgroFirm* manages. For participants, it is about being ready to respond to business opportunities in the Middle East in a fast and flexible way. As expressed in the literature review chapter, flexibility with speed represents an agile organizational approach (Garcia-Alcaraz et.al, 2017; Volberda, 1999; Derue, Ashford and Myers, 2012). In this literature, flexibility usually surfaces in the ease of decision making and having a non-bureaucratic organization system in place.

The importance of being flexible and speedy in volatile markets has been extensively discussed by both academics and professionals. Sherehiy, Karwowski and Layer (2007) argued that gaining strategic abilities related to speed and flexibility serves agility whilst at *AgroFirm* Jack explained that "Fast decision taking includes price harmonization; speeding up the internal process for example with new product introduction, and flexibility in logistics like Iraq case".

Both the academics literature and professional practice regarding flexibility with speed draws attention to the empowerment of front line operations. Being agile requires management pro-activeness and empowerment towards local organizations and across different functions. It also requires, according to Tom’s argument in the interview, the right decision making platforms and technological systems. These technological systems are enablers that improve development through better sharing of information, efficient alignment of objectives and, consequently, facilitation in taking decisions. Indicative quotations from the interviews relating to the importance of flexibility and speed are shown in Table 5.5.

Table 5.5: Illustrative for a link between agile performance and flexibility and speed.

1st Level categorization	Indicative quotes from interviewees	Aggregate Dimension
“Flexibility”	Sara said “Systems of supply chains for companies intending to penetrate volatile markets should be really flexible”.	“Agile Performance”.
“Speed”	Mary said “Speed in manufacturing, speed in smelling the opportunities and speed in acting upon it”.	

5.4.2.2 Adaptability and Responsiveness in Improving Agile Performance

As previously discussed in the literature review, academics have noted the importance of gaining organizational agility through adaptation of companies’ operations, systems and approaches towards turbulent markets. Dubey et.al (2018), Kidd (1994), Volberda (1996), De Toni and Tonchia, (1998) and Yusuf et al. (1999) have argued that adaptable organization should treat different markets differently for better management of the targeted country. From a professional point of view, the interviews revealed that adaptability of *AgroFirm* to highly volatile markets is critical for effective management. Participants in marketing & sales complained about the challenges of facing daily uncertainty, emphasising that *AgroFirm* should continuously adapt to market drivers for better performance. They argued that the more the company’s strategies and

processes in the Middle East are agile in a way that fosters adaptability to market conditions, the better it will be positioned in the market place. For example, Michael highlighted that he was only occasionally able to adapt to market requirements to achieve good business results because in most cases he was blocked by the company's rigid processes and ways of working.

Yet, adaptation is not always possible, as Nick points out from a senior management perspective. Multinationals are governed within an international structure and systems will not be able to adapt to markets like the Middle East. For Nick, the Middle East's volatility as a market is driven by political unrest, uncontrolled registrations and insecure economic conditions all of which make for unavoidable uncertainties. Accordingly, he felt that organizations in the Middle East must delegate more and more operations to local partners or distributors that are more agile and able to adapt to market conditions.

This dilemma between *AgroFirm's* ability to become adaptable versus standardization surfaced in the empirical data but was not examined deeply in the literature. Accordingly as part of the action research process, it will be critical to reflect in my proposed actions for improvement the possibility for the adaptation of processes.

As for responsiveness being a part of agile performance improvement, Dervitsiotis (2008) explained that responsiveness is a result of proactive management to market disruption. The interviewees confirmed the same experience. For participants in the supply chain, responsiveness was the result of strong and effective management of operations to deliver products with the right quantity, quality and on time. For European markets, delivering products to market destinations is a routine job, while in the Middle East this task is complex and challenging. To be responsive it requires management to understand deeply the market drivers. It requires functions across the organization to collaborate closely for better services in terms of supply chain/logistics, finance, product development and marketing to enable responsiveness towards market conditions. For example, in the product development department at *AgroFirm*, Arnold and Iyan praised the fact that their portfolio is highly diversified for the way that it enables them to respond to different market demands in a timely manner. They added that even when some of the products are banned in a country they have other solutions that compensate for the losses more quickly than the competition. For them, the more *AgroFirm* is able to respond in a timely way to business opportunities the greater their competitive advantage.

Agile performance through responsiveness, however, requires management to ensure alignment across functions regarding the objectives required from the targeted country. Stevens & Johnson (2015) explained that responsiveness to meet the market demand becomes critical for an organization due to increasingly demand by customers. John and Francis explained that the company's objectives in respect to responsiveness is different in the case of sales & marketing from the supply chain, finance or product management. The greater the coordination between functions, the easier it is to deliver a service that meet markets conditions and responds to market opportunities.

Adaptability and responsiveness appeared to be important for interviewees in the empirical data as much as in the literature review. An agile performing organization needs to be highly adaptable and effectively responsive to market changes in the Middle East in order to be competitive. Table 5.6 shares indicative quotes related to adaptability and responsiveness.

Table 5.6: Evidence for the link between agile performance with adaptability and responsiveness.

First Level categorization	Indicative quotes from interviewees	Aggregate Dimension
"Adaptability"	Suzy said: "Secondly, adapting the ways of working. In many cases we are trying to influence these processes to keep it workable to our market environment thus we are making updates".	"Agile Performance" .
"Responsiveness"	Mary said: "Agility means more investments this is because agility means you are ready to respond to any opportunity fast".	

5.4.2.3 Resilience and Absorption for Agile Performance

Academics have extensively discussed the concept of resilience in volatile environments. This is defined by Hamel and Valikangas (2003) as the ability of companies to reinvent new business opportunities and strategies that could help in coping with uncertainty. Koak et.al (2018) argued that resilience is manifest as an organization's ability to return back to its original state upon being disrupted by volatility. The same argument was discussed with one of the senior managers at headquarters in *AgroFirm* who highlighted during interview the importance of having resilient management that can cope with the market volatility persisting in the Middle East. He added that the more resilient the organization the higher the chances of maintaining sustainable and effective operations. From his experience, volatile markets provide minimal information and transparency on market conditions, which requires the decision maker to have a resilient plan. Bauernhansl, Mandel and Diermann (2012) and Gölgeci and Ponomarov (2014) noted the same in the literature since the rising volatility in market conditions leads to a higher level of unaccountability and/or uncontrollability.

On the other hand, interviewees suggested that a resilient organization requires its management to have a high-risk appetite while being able to absorb challenging situations. Arnold argued that *AgroFirm* is a strong multinational company that was able in the last decade to absorb volatility and manage uncertainty in relation to maintaining its local investments, keep delivering its offers and financially securing its business. For interviewees, *AgroFirm* is a company with a diversified portfolio, solid financial position, and which has penetrated the Middle East markets. Accordingly, its agile performance in terms of resilience and absorption meets an important criterion for effectively manage Middle Eastern volatility. Table 5.7 gives indicative quotations showing the linkage between agile performance and both resilience and absorption.

Table 5.7: Evidence for the linkage between agile performance to resilience and absorption

First Level Categorization	Indicative quotes from interviewees	Aggregate Dimension
“Resilience”	Pete said: “Always, wherever I have been, you will find there is a certain amount of resilience through periods of volatility”.	“Agile Performance”
“Absorption”	Ayan highlighted the importance of the organization being able to absorb changes during volatility.	

5.4.3 “Agile Capabilities”

The aggregate dimension of "agile capabilities" is concerned primarily with the role played by people in ensuring the operations become, and remain, agile. The research findings and literature suggest certain capabilities that are relevant for management of volatility. This aggregate dimension indicates the importance of developing these capabilities and ensures they remain up-to-date. Throughout the interviews, the research participants referred to the importance of specific skills that management and front line employees should have in order to manage market volatility in the Middle East. These abilities were clustered under agile capabilities labelled “mind-set”, “values”, “commitment”, “focus”, “patience”, "empirical learning" and “internal coordination” (cf. Figure 5.3).

5.4.3.1 “Mind-set”, “Patience” and “Commitment” as constituents of “Agile Capability”

One of the challenges of market volatility identified by participants was the difficulty of understanding and managing the continuous changes happening on daily basis. The interviewees claimed that individuals living in the Middle East, or those who experienced its turbulence, are more capable of capturing different incidents and trying to manage them better. Mary, from the supply chain and based in the Middle East office, highlighted that she spends too much time trying to explain to headquarters what is happening and the reasoning behind it, since those colleagues

are too systemized and process oriented. She tries to raise awareness to management and change their structured “mind-set” to understand that the Middle East is not a structured market and requires new solutions that are not rigidly framed in a process or procedure previously set for European markets. For her, such an approach requires a shift in mind-set to be open to creative and pragmatic solutions from both local and headquarter’s. Meyer (2015) in her book “The Agility Shift” explained that business leaders should be ready to make strategy and radical mind-set shifts during the development of an agile organization capability to innovate solutions and manage volatile situations. Arnold added that the management mentality lies in ensuring a tight partnership across the business value chain since in a volatile market it is not possible to win alone. He argued that the logical approach of annual budget setting that organizations have used for decades might not be workable in a volatile market since there should always be backup plans and alternative budgets in case uncertainty increases. Jack from marketing and sales reflected that an entrepreneurial mind-set is required where risk is taken for the gain of profit. This kind of business mind-set is what is actually needed in the Middle East as the market contains both a lot of high risk as well as many opportunities. Jack added that local people are the most capable to explore these opportunities.

AgroFirm Middle East made a big commitment to the Middle East market by investing in the regional office in Jordan. Michael, Tom and Jack suggested that more might be made of this investment because decision making was still centralized at headquarters. Jack, from marketing and sales, argued that management should be open-minded about the value of empowerment and to be ready to delegate many decisions to the local organizations, who in turn lead the business locally.

The literature did not discuss organizational mind-set as being critical for the effective management of market volatility. Whilst, the academic literature has considered the role of organizational mind-set in capturing new learning and skills, especially in continuous changing environment, it has not examined the influence of mind-set when operating in volatile markets (Kamasak et.al, 2017; Derue, Ashford and Myers, 2012 citing De Meuse, Guangrong, and Hallenbeck, 2010; Eichinger and Lombardo, 2004; Lombardo and Eichinger, 2000).

Regarding the first-order category of “commitment” to the strategy of the volatile market like the Middle East, most of the research participants from different functions argued that management should be committed for long-term investment in these markets. Despite turbulence and uncertainty, the moment the organization decided to penetrate in Middle East they should be ready to maintain sustainable operations. For example, in product development, where a long term perspective needed, Arnold mentioned that *AgroFirm* should be committed to its plans and strategy. He added that market uncertainty should not force management continuously to change their policies or procedures since this might destroy product development. Nick shared the experience of continuously defending the potential of the Middle East market and its importance in front of management committees at headquarters in order to maintain their commitment and investment. Again, academics have not explored the importance of commitment to the strategy, which requires a true belief from decision makers in an organization.

Other less commonly recurring first level categories mentioned by the research participants were being “focus” and “patient” in managing market volatility. Iyan reflected on his experience in the Middle East that uncertainty in markets usually pushes him to lose focus on the main objective for delivery. He is always on fire fighting tasks with newly unexpected events and never focus on end of year results or strategy delivery. Michael commented that management should coach and support employees in ensuring their focus on strategy delivery otherwise they might lose track and resources. Arnold also supported the idea that focus delivery of the product offer is critical in his product management function to meet customer expectations.

Regarding “patience”, Nick in business management criticized *AgroFirm*’s management for downsizing the Iran operation back in 2012, saying that at the time they should have been more patient and waited for changes. He added with the expected relaxation of international sanctions, *AgroFirm* will need to rebuild capacity and capabilities in the Iranian local organization, which will not be easy and will cost a lot. In volatile markets, there should always be a kind of managerial patience towards uncertainty or ambiguity.

5.4.3.2 “Empirical Learning” drives the development of “Agile Capabilities”

Academics have discussed organizational agile capabilities from the broader perspective of including employees’ experiences, systems of reporting, information management and any other sources (Kidd, 1994). Other scholars have argued that organizations shifting to agility should develop their capabilities through an iterative process that is based on practical knowledge to be able to manage market volatility effectively (Mayer, 2015; Pan et al., 2007; Teece et al., 1994). In this research, the participants shared similar views and confirmed what has been produced in the literature. They highlighted that advances in agile capabilities within an organization can only be through practical experience gained when operating in volatile market. This practice of gaining experience from the field has been coded as “empirical learning” as a first level category.

For example, in the supply chain, Mary reflected that the key empirical experience that she developed upon engaging with the Middle East market is agility in process and approach. These extraordinarily challenging issues experienced from the markets force employees to seek solutions with different functions in an organization like *AgroFirm* in order to be able to deliver a business or a consignment to designated markets. Thus, among the agile capabilities needed within companies in the Middle East, Mary highlighted the ability to dedicate all available resources towards emerging business opportunities through the involvement of different functions. This focus approach from various functions towards one single opportunity at a time will support the process of finding solutions to the targeted business. The moment this business is delivered then the team should seek another opportunity. Mary argued that such an approach reflected highly agile capabilities as it shifts functions from doing routine work to being solution providers and opportunity driven; although this may reveal internal volatility in the way structures and formal processes are not respected. Usually unplanned business opportunities lead to a chaotic approach if management wishes to take those opportunities, but Mary says: “Such internal volatility could be called in positive way agility”.

One of the key challenges that *AgroFirm*’s management have encountered is in relation to employees in headquarters not being close enough to the Middle East market and thus missing out on empirical learning. This requires employees in the market to have an effective communication skill so that they can transfer their experiences and knowledge about the Middle East to senior

management at headquarters. Both Sara and Iyan made the same observation and opined that those in headquarters do not appreciate the agile capabilities that are needed for the effective management of volatile markets.

Upon discussing with Pete from headquarters the capabilities needed when recruiting new employees in Iran, he said the following:

“More an entrepreneurial type, when you want to recruit someone in a market like Iran, where there is volatility but also a potential scenario then you need a character that gets short term opportunities, but is also able to build a platform for the future”.

Accordingly, companies operating in the Middle East should be aware of the challenges of volatile markets and their recruitment and/or development processes should meet the need for agile capabilities. Pete also reflected that employees in small companies learn in a very simplistic way versus big multinational company that requires the learning to be cascaded to several thousand individuals, which is complex and takes time.

The data generated from the interviews showed that successful agile employees operating effectively in volatile markets require good market knowledge, as well as having good and clear communication internally with different functions. In addition, those in the Middle East should have excellent external relationships with the stakeholders, which are critical for the business, such as officials and customers. Harry added to the above that management at *AgroFirm* should have high listening skills; being ready and open to learn from local subordinates’ market challenges and volatility.

As for empirical learning (Appelbaum et.al, 2017), most of the research participants kept repeating the statement “learning by doing”. They all agreed on the fact that effective management of volatile markets cannot be learned in a class or theoretically. It is about experiencing newly emerging events that are either positive or negative and by trying to find solutions to these challenges. For them, it is about having a team that is engaged in market volatility and open-minded to learn continuously how to manage this market effectively. This requires management to work continuously on leveraging the capabilities of the local organization in order to gain new experiences and skills. In a similar vein the academic literature confirmed the importance of

organizations being adaptable to environmental changes by continuously leveraging their capabilities through an effective approach to learning (Appelbaum et.al, 2017; Spinello, 1998).

Management should support the development of agile capabilities and foster empirical learning for the effective management of market volatility. According to Jack, however, at *AgroFirm*, headquarters never opens up to learn from local Middle Eastern colleagues. Employees at headquarter always push the European standards, which are not workable in uncertain environment. Francis, however, who is based at headquarters, has a different point of view. He highlighted that his learning about the Middle East market came from local people sharing their experiences with him. He added that what he learned from local employees is usually shared with senior management to support them in taking decisions. He also argued that *AgroFirm* has its own special working environment and employees should also operate within the overall framework of the organization. There should be a balance between agility management and the organization's internal ways of working.

Organizations that are planning to penetrate and operate in volatile markets should have be ready to develop agile capabilities across the organization. Tom, in Human Resources, explained that his employer faced internal challenges that delayed the development of agile capabilities. Among these challenges is the continuous loss of experienced leaders in Africa and the Middle East. He commented that when a new replacement is hired he or she usually start learning from scratch as the company is not good at retaining knowledge. The second challenge is the openness of senior management to learn from local subordinates. At this stage, headquarters is not open to learn from colleagues in the Middle East, which is an obstacle to the effective management of market volatility. The last insight Tom shared is that employees should unlock their potential by focusing more on the job than sticking to theoretical concepts. Although the company invested a lot in many leadership training and marketing and sales excellence initiatives but cannot replace empirical learning where real experience is gained. Accordingly, there should be a set of practices and attitudes embraced by the organization for effective management in volatile markets.

5.4.3.3 “Focus” and “Internal Coordination” as First Level Categories Linked to the Aggregate Dimension “Agile Capability”

These first level categories are related to being focus, both as an organization and as an individual in volatile markets, which has not been intensively addressed by academics. One of the participants in the interviews reflected on the importance of “focus” in the management of market volatility and this is mentioned in the analysis due to its relevance. In volatile markets, there are daily changes that are sudden, huge and important. Accordingly, employees are distracted from the delivery of their strategy and thus need high level skills to ensure sufficient focus to achieve results. Arnold argued that he had observed many companies in the Middle East losing business because they were not focused on their portfolio, nor on their business activities nor on their approach to the market. *AgroFirm* in the Middle East, therefore, needed to mitigate the risk of being distracted by market volatility challenges, which requires a highly focus management approach towards delivering a sustainable growing business.

Regarding internal coordination, it is considered that contexts in which many agile teams are working together and targeting the achievement of the same goal require high coordination (Dingsøyr et.al, 2017). During the interviews different functions reiterated the importance of this term. The research participants complained that *AgroFirm*'s current set of processes make it difficult to gain agreement across functions on a task within an uncertain market environment. Local employees such as Sara, Mary, Iyan and Jack, use their own internal networks with other functions at headquarters to facilitate specific tasks that are blocked due to unworkable processes or systems. For them, internal coordination with effective stakeholder management at the headquarters level is critical for their success due to the unpredictable changes in the market place. The effective management of volatile market is practised through coordination between functions during the decision-taking process. Employees at multinationals should have effective communication with high internal coordination skills between the local organization and headquarters in order to manage market volatility and maintain their business.

Such effective internal coordination across functions is maintained by having sufficient alignment of objectives between these functions within *AgroFirm*. The aggregate category of

internal coordination is considered by senior managers like Nick, John and Tom at *AgroFirm*, to be when everyone is operating to the same agenda.

Reflecting on the literature review not many academics have highlighted the importance of internal coordination, especially in big multinational organizations. Yusuf et al. (1999) explained that coordination across stakeholders leads to a synergetic approach towards delivery of strategy to the industry. Bohdana, Karwowski and Layer (2007) also explained that agile organizations should have a lean structure and little hierarchy to be able to coordinate efficiently in volatile market situations.

5.4.4 “Market Driven Organization” aggregate dimension

The focus of the first three aggregate dimension has an implicit internal orientation in the sense of being concerned with the firm's own operations, the final dimension draws attention to the importance of not losing sight of the markets which those operations serve. Its emergence in the analysis reflects the importance of the previous three dimensions aligning with the drivers of market volatility.

The Middle East market is made of twelve countries and these vary in their level of volatility and business opportunities. *AgroFirm* needs to be selective in its approach to these markets. For example, the Gulf countries are the least volatile but with limited business opportunities, while other Middle East markets (Iraq, Iran, Syria, Lebanon and Jordan) are more volatile but have higher business growth potential. In the following two sections both first order categories are discussed in an attempt to explain the way *AgroFirm* needs to achieve greater market share in the Middle East.

5.4.4.1 “Market Opportunities”

AgroFirm's corporate management viewed Africa and Middle East as a place to invest for growth. They argued in the 2011 Annual Business Review report that in Africa and Middle East:

“Smallholders are at the heart of agricultural development in the emerging markets, and their fate will effectively determine the world’s long-term food security. There are 450 million small farms typically supporting five household members each, meaning that one-third of the world’s population directly depends on them for part of their livelihood”.

Francis, who is in product management at headquarters, explained that the Middle East market:

“Is much more dynamic market, and at the end you have more business opportunity. Yet, when you are in highly dynamic market, plus all in all agriculture in these areas is vulnerable, but when you have country in Saudi Arabia that stops cereal production due to governmental regulations, this creates a dynamic market but also a challenging one”.

The same was reflected by other *AgroFirm* participants in the local organization, both from the supply chain and the marketing and sales departments, who highlighted that small business from different countries in Middle East are queuing up to take bigger role. Also, tender businesses in Iraq, Iran and Gulf countries still create good opportunities for the company to sell its products. In addition, and despite the fact that the market is volatile and risky, if it was managed effectively these challenges change into gaining more and more opportunities to grow the business. Most multinationals, however, search for lower risk markets to invest thus losing business opportunities to smaller companies that have a higher appetite for risk taking and are agile enough to deliver the business as demanded by the market. Nick, from Egypt Business Management mentioned, “For any investment, they will need stability/security, the rule of law (not available in ME due to bureaucracy and red tape/corruption) and a supportive investment environment”, thus he believed that multinationals including *AgroFirm* will not be able to sustain their operation in such highly volatile markets in the future.

AgroFirm’s management needs to be driven by market drivers’ trends to gain competitive advantage and be able to apply their agile approach differently to maximize effectiveness. This will require both local employees and headquarters to have a deep understanding of each targeted market within the Middle East and be able to approach it with different strategies.

5.4.4.2 Volatility Drivers in the Middle East

Earlier, in chapters 1 and 2, the drivers of the volatility in the Middle East market, were identified as lying in three main categories: (1) Political and economic, (2) regulatory and compliance and (3) technology and weather conditions. The more *AgroFirm* is able to mitigate these volatile challenges, the higher its chance of enhancing business opportunities and reducing risk. To do this effectively, the local employees need to be able to anticipate market challenges. John, from finance, argued that the agricultural industry is unique and has its specific elements that are critical and might prevent companies from being agile. As much as agility is important for the effective management of volatility, standardization in agribusiness promotes efficiency. The effective management of market volatility is critically important for *AgroFirm* to deliver its strategy in the Middle East and this requires the organization to have more timely knowledge of changes in the targeted market, as well as being ready for these in terms of amending its approach.

5.5 Summary of the Analysis of the Research Findings

The empirical data generated from *AgroFirm's* interviewees has revealed the extreme challenges caused by the high market volatility in the Middle East. The research findings have also revealed the difficulties that *AgroFirm* Middle East encountered internally in terms of their strategic approach, their structure, operations and ways of working. These challenges were evident in the Iranian market and the research participants commented about Iran organization becoming detached from then market following the downsizing of the organisation structure and closing the Iranian office in 2012. This decision led to losing an important advantage upon operating in volatile market; namely proximity to the market. The loss of local expertise is reflected in table 4.1 where the impact of downsizing is reflected in reduced the sales and the market share. Sales dropped from \$32mio in 2012 to \$4.0mio in 2013 and market share (MS) reduced to its min i.e. 4% after being around 10.5%. *AgroFirm* with the downsize decision lost 21 employees who has been in the company for more than 10 years and well trained. As well the number of customers dropped to half while range of sold products dropped by 35%. All these challenges required from *AgroFirm* HQ management in 2015 a revised strategy towards the Iranian market. This DBA study informed this strategy-making regarding the importance of having agile organization to unlock the potential

of a volatile market. In chapter 6, I will share the new strategy and ambition of *AgroFirm* management in Iran.

It is important to mention that the research findings and analysis chapters generated four aggregate dimensions that explain the requirements for the management of market volatility in the Middle East: “agile performance”; “agile capabilities”; “agile organization”; and ‘market driven organization’. In chapter 6 these second level aggregate dimensions are used to develop the actionable knowledge that will be the basis for engaging with seniors and developing proposals for action for management of volatility at *AgroFirm* in the Middle East.

Chapter 6: Generation of Actionable Knowledge and Practical Proposals for Action

6.1 Introduction

In this chapter I will be setting out an actionable knowledge framework generated from the research analysis. Actionable knowledge is knowledge that has been generated by robust academic analysis, but which is also useful for practitioner communities (Adler and Shani, 2001). The reason behind the development of actionable knowledge out of the *AgroFirm* case is to help in solving a real organizational problem, and thus bringing change to the firm's Middle East office, while adding to academic knowledge through the development of a framework that can be tested in other similar situations (Coghlan, 2007). To do this effectively a collaborative approach with senior management at *AgroFirm* will be required to support the co-development of actions that lead to better management of volatility in the Middle East market.

This chapter builds upon the robust thematic analysis in Chapter 5 in order to develop a framework that will allow the articulation of actionable propositions (Agyris, 2005). Besides, it integrates the analysis output in respect to the *AgroFirm* case with the literature in order to develop a robust actionable framework with key propositions intended to support the company in effective management of volatility. These propositions articulate the link between actions to outcomes and were based on logical and evidenced informed reasoning generated from both empirical and research data.

The aim is to use this actionable framework and the propositions as a device to engage with *AgroFirm*'s senior management responsible for the Middle Eastern volatile market. The objective of engaging with senior managers in this manner is two-fold: (1) to validate the research findings and analysis; (2) to work with them in a spirit of co-inquiry (cf. Raelin, 2016) to identify actions for improvement and, implicitly, obtain their ownership of and commitment to change. This co-inquiry is presented in this chapter by describing the response of senior management at *AgroFirm* to the research findings and the proposed actionable framework for management of volatility in Middle East. It is important to mention here that the outcome of the engagement with senior management resulted in a set of actions but also partial modifications to the actionable framework, along an assessment of the feasibility of implementation. Throughout the process, I critique some

of the senior management feedback and I discuss their arguments related to modification of the framework. Furthermore, I include insights that surfaced during the engagement process regarding the feasibility of implementing the proposed actions.

The coming sections will remind the reader of the four aggregate dimensions that are considered the building blocks for the actionable framework. This model will then be introduced and its structure explained in terms of the different phases of management intervention identified in the literature review (see section 2.4). Then I present a critical account of my engagement with senior managers. The objective out of the engagement was to develop actions that progress *AgroFirm* towards better management of volatility. I ended with reflection on the process as well as a discussion of the business outlook following adoption of the actionable framework and implementation of the proposed list of actions.

6.2 Integration of Aggregate Dimension with Three Phases of Management Intervention

The structure of the actionable framework was constructed by integrating the 4 aggregate dimensions from the thematic analysis (chapter 5), with the three phases of management intervention from the literature review (section 2.4). *AgroFirm*'s operations in an uncertain market environment can be understood as progressing through these different phases. These different phases were identified and discussed in the literature review earlier in chapter 2, and also validated during the interviews with research participants. These three phases were labelled as the “penetration phase”, the “responding phase” and the “learning phase”. In figure 6.1, these three phases are presented and defined, and their implications are discussed.

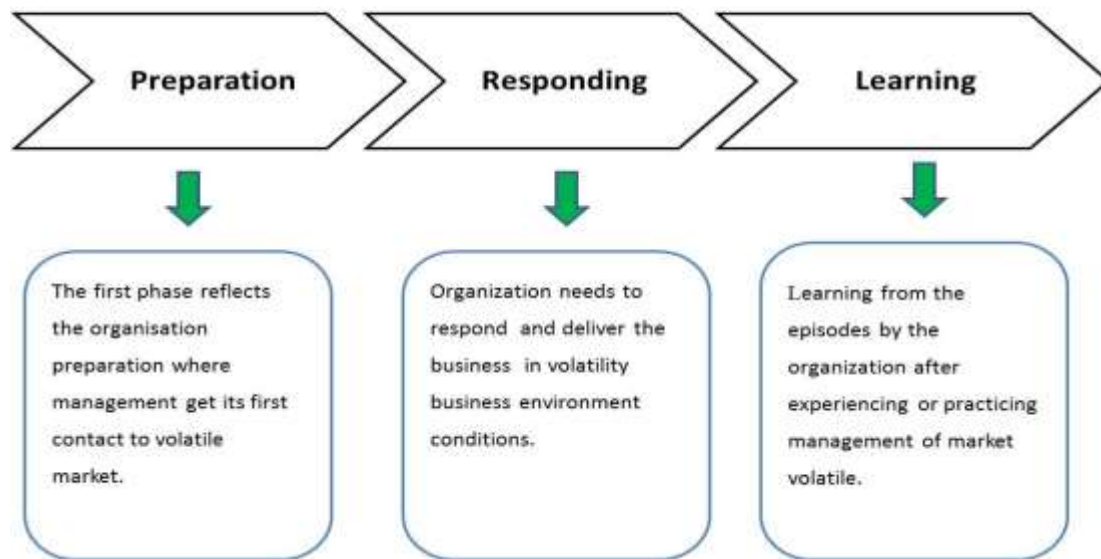


Figure 6.1: The three different phases of management intervention in volatile markets

The subsections below explain each phase and its integration with the related dimensions to show how the framework operates. It is important to explain that I will be developing the actionable framework gradually based on each aggregate dimension and its relation to the phase in question. This gradual development will help to provide a deeper reflection on each phase and how it relates to the previous one.

6.2.1 “Preparation Phase” and “Agile Organization”

Vázquez-Bustelo and Avella (2006) argued that organizations should ensure their readiness to operate in volatile markets by applying a clear vision and strategy. Sherehiy, Karwowski & Layer (2007) added that they should embrace specific agility-related traits at an early stage of engagement with volatile markets. Sherehiy & Karwowski (2014) explained as well that the strategy towards embracing agility assimilates various techniques that provides a framework of flexible systems. With this context in mind, an organization should be flexible in progressing towards the three phases of engagement in volatile markets. The first phase, labelled the “preparation phase”, is the stage where the company decides to enter new volatile markets. Figure

6.2, illustrates how the "agile organization" aggregate dimension is associated with the preparation phase because of its relevance to the initial stage of the management of volatility. The rectangle in the figure below represents the boundary for this first phase. Another two rectangles will follow later representing the other two phases as we progress in developing the actionable framework. The complete actionable model will be shown together at the end of the chapter, along with an explanation of how its elements work together.

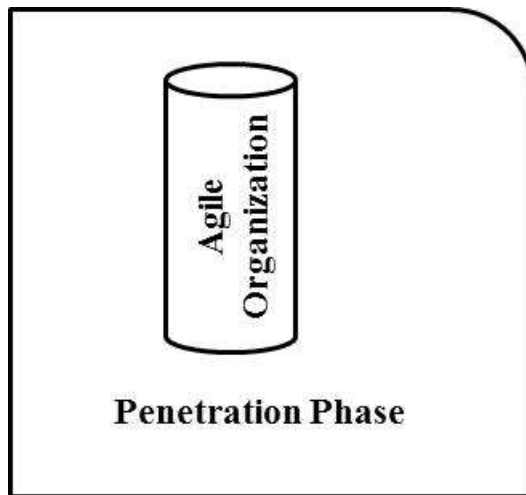


Figure 6.2: Illustration of the first element of the actionable framework - “Agile Organization” and “Preparation Phase”

The research findings suggested key propositions that need to be supported during the penetration phase so that the agile organization is ready to access the volatile market.

Proposition no. 1: *Management at AgroFirm needs to be aware at an earlier stage of the challenges posed by Middle East market uncertainty and needs to be able to capture deeper knowledge about these challenges to support the organisation in establishing appropriate strategies.*

During the preparation phase, *AgroFirm*’s management need to understand that they will not be able to work in a structured environment where standardization of operations prevails. They should be able to shift their strategic priorities efficiently (Aaker and Mascarenhas, 1998; Meyer, 2015), develop a lean empowered structure (Vázquez-Bustelo and Avella, 2006) and be ready to embrace agility with speed (Tseng and Lin, 2011). *AgroFirm* in this phase should be ready to develop an “agile organization” that reflects an agile strategy and agile structure. The more fully

both the management and the local Middle East team understand the implications of volatile markets for routinized operations the more likely they will be to establish an agile organization capable of anticipating sudden unexpected changes.

Proposition no. 2: *AgroFirm needs to invest in local offices close to the market to enable it to react to sudden volatile events.*

In the Middle East market changes in regulatory environment, product demand and market networks occur frequently and unexpectedly. Accordingly, the management should maintain their investment in market “proximity” so as to deepen its knowledge of volatility drivers. At this stage, *AgroFirm* has its offices in Jordan, Egypt, Iran and Iraq. These local offices in the Middle East provide a continuous flow of market knowledge. During the preparation phase, the readiness of the organization for agile organization is reflected in its strategies and local investment. Such investments support the other phases in having empowered (Bjornar, 2014) upfront local capabilities (Tseng and Lin, 2011).

With these two propositions in the “preparation phase” the local Middle East *AgroFirm* offices will be able to develop an “agile organization” to engage with the market and prepare for the second phase.

6.2.2 “Responding Phase” and “Agile Performance”

The second phase in the actionable framework is the “responding phase” where the organization strives to operate within a highly turbulent market environment. Dove (1992), Bohdana, Karwowski & Layer (2007) and Appelbaum et.al (2017) argued that during this phase the ability of the organization to respond quickly and effectively to unexpected challenges is very important. Hamel and Valikangas (2003) added that the organization should set compelling foundations to respond to volatility. Accordingly, the association of “agile performance” with the “responding phase” concerns how *AgroFirm* manages these volatile challenges to deliver its strategies. Hamel and Valikangas (2003) and Sull (2009) explained that operational excellence and agile processes enable the organization to deal with uncertain conditions.

The research findings revealed that "agile performance" only becomes possible if there are robust organizational foundations already set down during the “preparation phase” that enable the

company to leverage effectiveness towards the management of volatility. Figure 6.3 illustrates the actionable framework and shows how “agile performance” is associated with the “responding phase” and how it builds upon the previous phase.

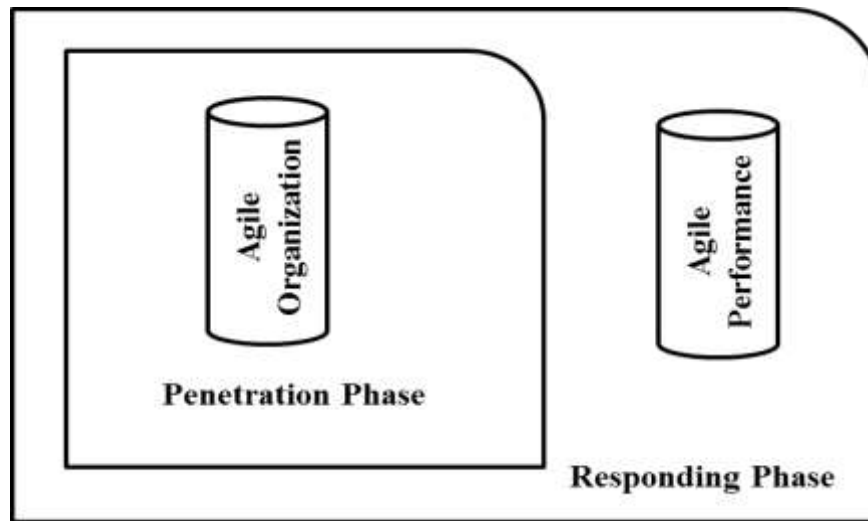


Figure 6.3: Building the actionable framework - inclusion of both “preparation phase” and “responding phase”

Since this phase reflects the day-to-day operations within *AgroFirm’s* Middle East organization there are several propositions that need to be taken into consideration by the management to ensure business performance and gain competitive advantage.

Proposition no. 3: AgroFirm Middle East should review its commercial policies and adopt “agile performance” characteristics for higher effectiveness in the management of volatility.

The research analysis reveals that during the responding phase the processes and ways of working should be designed for flexibility in order to gain speed in their daily operations. Participants in the supply chain, marketing and sales, finance and product management argued that the organization’s systems should have performance characteristics like “agility”, “adaptability” and “responsiveness”. Accordingly, these elements of agile performance need to be reflected in Middle East commercial policies to ensure clarity across the organization and alignments among various functions.

Proposition no. 4: The Middle East local office needs to ensure development of contingency plans for better risk mitigation during “responding phase”.

Operating in volatile markets requires management and front line team readiness to respond to unexpected events and uncertain conditions. *AgroFirm*’s team should have effective risk management routines developed through scenario planning. Such risk mitigation plans become critical in financial management and the supply chain, especially when market situations become highly challenging such as with Iraq, Yemen, Syria and Iran. Peterson et al. (2002) explained that scenario planning is considered to be a systematic method in the management of complex volatile conditions. This applies also to product management where the richness of the organizational pipeline supports agility in their offers to different Middle East markets where regulations, technologies and requirements differ.

6.2.3 “Learning Phase” and “Agile Capabilities”

The learning phase within the actionable framework is very critical and can only be developed with the progress of time and gaining of experiences from operating in the volatile Middle East. In volatile markets, learning is usually iterative and rapid (Pan et al., 2007). The learning (Appelbaum et.al, 2017) in volatile markets should be used to develop “agile capabilities” especially when the organization in previous phases has adopted both “agile organization” and “agile performance”. The development of the local organization’s “agile capabilities” involves the leveraging of experiential learning (McKenna, Boyd and Yost (2007). Accordingly, the aggregate dimension of “agile capability” is associated with the “learning phase”. The actionable framework in figure 6.4 shows the “learning phase” builds upon the other two phases. Moreover, it expresses the idea that learning will continuously be in development and inform the other two phases nested within it. This continuous learning is reflecting in circular arrows shown around the three different phases and the three aggregate dimensions incorporated all together in the actionable framework.

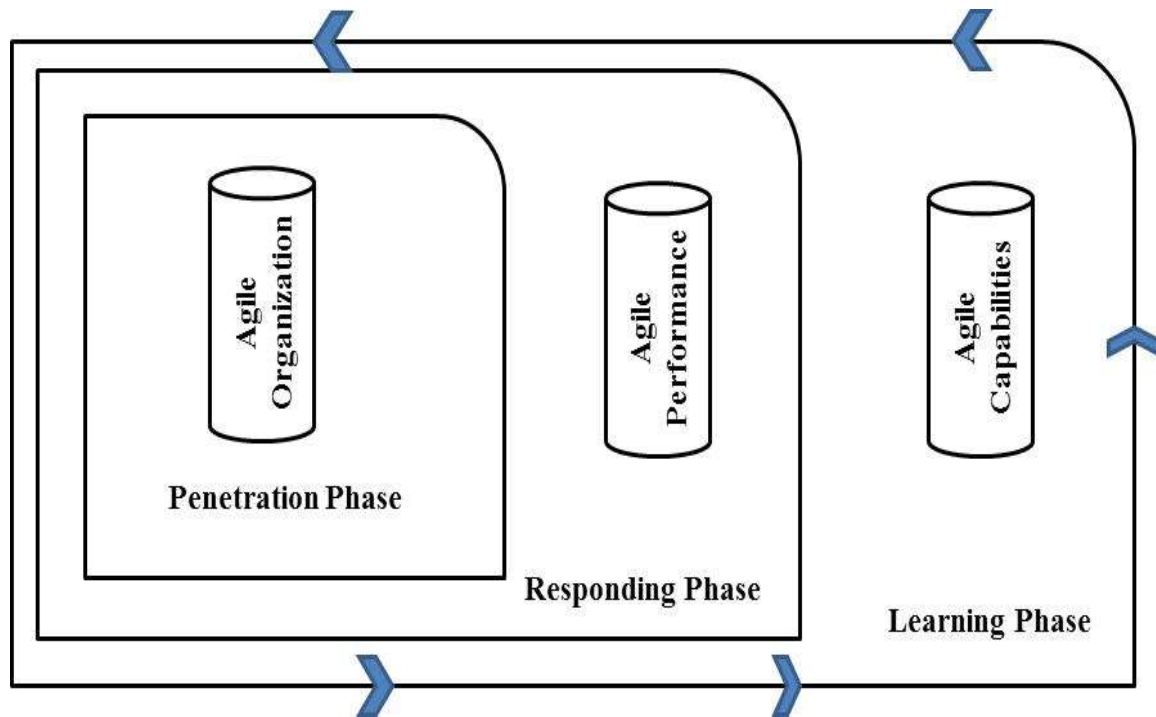


Figure 6.4: Building the actionable framework - addition of the “learning phase”

For the learning phase to be effective in leveraging the agile capabilities of the team operating in Middle East there are several propositions that management need to enact.

Proposition no. 5: The “agile capabilities” at AgroFirm need to be developed progressively as the organization becomes experienced at operating within volatile markets.

The interviewees explained that training courses or theoretical knowledge could add value to their experiences but will not deliver the same expertise that employees gain upon direct engagement in the Middle East. *AgroFirm’s* current competitive advantage in the Middle East is that it has experienced regional teams that have been with the company for more than two decades. Interviewees at headquarters highlighted that they have learned a lot from local employees through sharing of their knowledge related to the management of market volatility. Gunasekaran (1999) and Yusuf et al. (1999) explained that employees shift their paradigms or even shift in their mind-set (Meyer (2015) within the company upon developing their personal capabilities with volatile markets.

Proposition no. 6: AgroFirm needs to leverage agile capabilities through empowerment and efficient internal coordination.

The research participants' argued for the importance of empowerment in taking decisions and being able to manage volatility effectively and in a timely manner. This will require both the management at headquarters and local teams to adopt the various elements of agile capabilities explained previously in chapter 5. More efficient decision making will occur through effective internal coordination and, with alignment across functions. *AgroFirm's* Middle East interviewees highlighted from their local experience the importance of transferring decision making to the front line to effectively manage uncertain market conditions.

The outcome of nesting both agile organization and agile performance within the learning phase is an agile capable team that provides solutions, has impactful communication and enables the delivery of organization strategy. Furthermore, and with solid internal coordination between local teams and headquarters, the management will believe in the strategic value of Middle East markets and be ready to defend it in front of top management and external stakeholders. Nick, in business management, argued that the fact the Middle East environment is complex requires a lot of explanation and justification internally and externally, especially for a multinational quoted on the stock exchange market. This will only be achieved with close coordination and an empowered team able to leverage learning and effectively manage the volatility in the Middle East.

6.2.4 Market Driven Organization and Actionable Framework

The fourth aggregate dimension revealed in the research analysis drew attention to the importance of being an organization that is driven by market dynamics and changes. Since the Middle East is a volatile market, the actionable framework should express the idea that the three key elements of managerial effectiveness should not be static, but rather be attuned to market changes. Figure 6.5 sets out the complete actionable framework showing the fourth aggregate dimensions related to being a market driven organization and the three phases integrated all together.

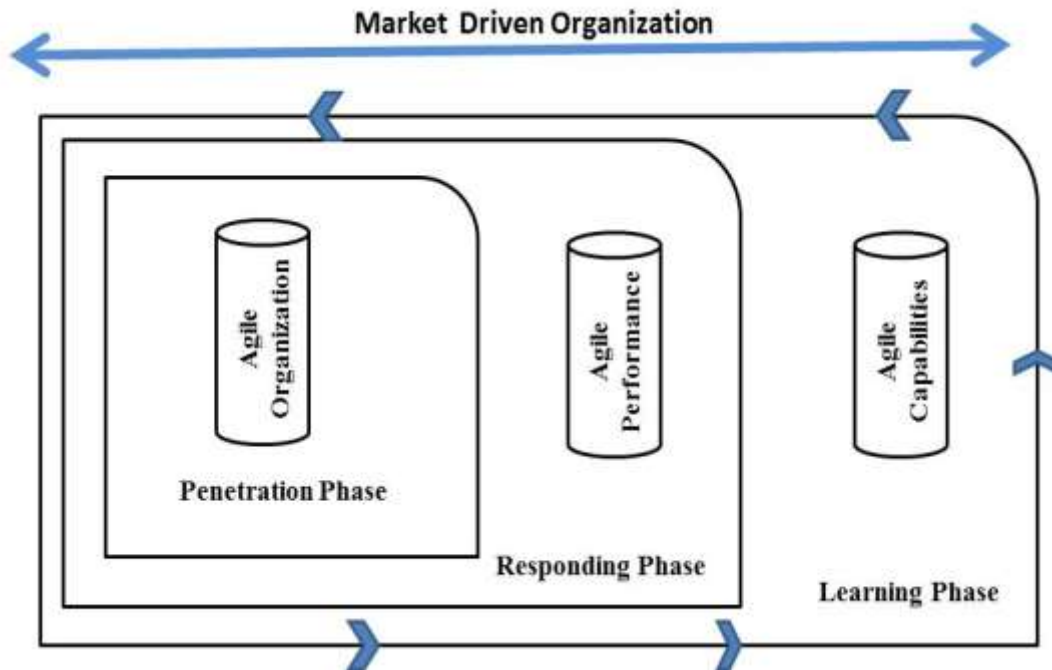


Figure 6.5: The complete actionable framework

The above two sided arrow shows the importance of *AgroFirm* being at all times, and at different levels of market integration, driven by the market environment surrounding it. There are broad shifting factors that can intensify Middle East market volatility such as political and economic instability. These market driven factors were set out well by Zhang and Sharifi (2000), who explained the marketplace competition basis, customer requirements, technology and social factors. Accordingly, there are two other actionable propositions that need to be proposed to senior management at *AgroFirm*.

Proposition no. 7: Upon penetrating a new market in Middle East, the management of AgroFirm should make investments in specific gradual steps rather than making with big investments.

Gentler market penetration by *AgroFirm* will support local Middle East organization to understand the market drivers, to build a solid network and be able to develop an exit plan in case the market becomes insecure, as in Syria, Yemen and Iraq. Incremental investments will allow both *AgroFirm*'s management and the local team to develop their strategies, operations or ways of

working within the perspective of Middle East volatility drivers. They will also continuously upgrade or downgrade their business operations as per market drivers.

Proposition no. 8: The proposed actionable framework will become effective only when applied in a complete integrated approach within AgroFirm.

For *AgroFirm* to manage Middle East market volatility effectively it should apply the actionable framework in a complete integrated approach with its four aggregate dimensions and three temporal phases. The literature review revealed that academics previously approached organization agility distinctly in terms of their functions or organization divisions. For example, manufacturing agility has been proposed by a large number of scholars as a solution to management of volatility. The supply chain has also been discussed as needing to be agile if it is to survive in the market place. Agility in financial management and product management has also been reviewed. Discrete, function-led approaches to the management of agility are not advocated in a highly volatile market like the Middle East. Only through an integrated framework, and supporting propositions, can volatility be effectively managed. Accordingly, and upon engaging with senior management at *AgroFirm*, it is important to explain the ability of *AgroFirm*'s management to enact the model in a holistic manner.

6.3 Engagement with Senior Management at *AgroFirm*

The literature review chapter showed that scholars have explained that an organization that is able to understand, anticipate and manage the Middle East market environment effectively is the one that gains competitive advantage (Ganguly et al., 2009; Bottani, 2009; Gunasekaran, 1999; Nejatian and Zarei, 2013; Qin and Nembhard, 2010). Baumann et.al (2017) argued that a better understanding of how volatile markets operate improves the chances of developing a winning strategy. In this perspective, the empirical data from *AgroFirm* resulted in development of aggregate dimensions that when integrated with three temporal phases (from the literature review) have served to create an actionable framework for the management of market volatility. The merging of the literature review and the empirical data from the *AgroFirm* case resulted in the

development of a complete actionable framework that needs to be shared with senior management to elicit their support for the eight actionable propositions articulated above.

The chosen sample of *AgroFirm* senior management was based on those participants judged to be empowered enough within the company to implement change. These were managers currently active in *AgroFirm*'s Middle East operations, or sufficiently experienced with Middle Eastern markets to be able to offer their insights and proposals. The participants were selected from different functions including business management, supply chain and marketing, as well as from different geographic locations, such as headquarters in Europe and the front line in Jordan and Egypt. The reason behind this diversity in the selection of the senior sample was that at *AgroFirm* the management takes decisions based on consensus across functions and between HQ and locals. This is due to the fact that the business manager role supervises only marketing and sales and has no power over supporting functions like supply chain, human resources and finance. Accordingly, decisions related to any change within the organization or in regard to ways of working (managerial practices) require a management committee platform where different functions meet and agree on the change.

Table 6.1: List of *AgroFirm* senior management participated at this stage of the research.

Participant Anonymized Name	Function	Location and Seniority	Meeting Tool
Jack	Business Management	ME, Medium	Skype , 130 mins
Mike	Business Management	HQ, High	Phone, 35 mins
Francis	Asset Management	HQ, Medium	Phone, 45 mins
Mary	Supply Chain Management	ME, Medium	F2F, 60 mins
Nick	Business Management	Egypt, Medium	Skype, 50 mins
Pete	Business Development Management	HQ, High	Skype, 40 mins
John	Operation Manager	HQ, Medium	Skype, 60 mins

The engagement with senior managers was done via telephone, Skype and face-to-face discussions. Upon finishing each meeting or call, I developed a minute of the meeting that was emailed to the participants in an attempt to gather any more insights, as well as to confirm their viewpoints.

6.4 *AgroFirm* Managers' Responses

In this sub-section I describe the opinions expressed by the senior managers to the research findings and proposed actionable framework for the effective management of market volatility. The reaction of *AgroFirm*'s research participants varied from one person to another depending on their personal view of the proposed conceptual model, their experiences and their functions. It is important to highlight that decision making at *AgroFirm* is usually consensual across different functions. In keeping with this culture of operating, proposals for action will be more robust and accepted within the organization if they come from different functions.

Most of the participants supported the adoption of the proposed framework knowing that it was designed based on their initial insights from the earlier in-depth interviews. Jack, Mike, Nick, Mary and Pete agreed that the management of volatility requires the organization to approach the challenge in an integrated way where different functions are involved at different levels. Such an integrated approach should cover the strategy and the structure of the Middle East organization. It should mould the operational framework of the organization through a set of processes and a system that enhances agile performance and its ways of working; and it should retain highly capable people that should have specific agile skills and attitudes to manage the conceptual model effectively.

Francis, from asset management based in HQ, was the only senior manager to express reservation about the adoption of the proposed actionable framework. His concerns were the risk of conflicts across functions in case Middle East organizations lacked standardization in their operations and relationship with HQ. His conservatism arose from a belief that decision making should be kept at HQ to maintain compliance and standard procedures. The literature review and empirical data generated in this research did not support Francis' views in the context of volatile

markets; particularly in relation to empowerment to sustain business (Bjornar, 2014), build capacity and enhance agility (Volberda, 1996; De Toni and Tonchia, 1998; Prahalad, 2009).

Jack, Mary and Nick highlighted the importance of agile capability in the framework stating that skilled, experienced, people with the right mind-set are needed to deal with market volatility resulting in the effective management of a turbulent environment. They argued that those who are designing the local organizational structure, operations and processes, and who later build up local capabilities should be agile in their approach from the beginning and committed to the delivery of the agreed strategy. Moreover, Mike and Pete argued that agile capability is well placed in the actionable framework as it reflects the strategy set in place towards the Middle East. Vázquez-Bustelo and Avella (2006) and Kidd (1994) argued that agile companies usually support their organizational structure and operations through having empowered (Bjornar, 2014) capable people who are able manage these operations and deliver the organizational strategy. Accordingly, agile capabilities will be critical the moment the organization adopts agility and sets the foundation for its structure, strategy and operations.

Mike and Nick argued that those in charge of Middle East market and organization can proceed with implementation of the framework as it is in line with the global *AgroFirm* strategy to grow in emerging markets. It is expected, however, that those same management colleagues in the Middle East might be challenged by management in HQ if the proposed changes do not accord with the current standards and processes followed at the global level in *AgroFirm*. It is down to management choice, therefore, as to whether to fully adopt the model to become effective in volatility management or remain where they are currently, even if they lose opportunities to grow in the Middle East. A good example is *AgroFirm*'s approach towards the Iranian market. Back in 2012, management chose to downsize and close the local organization and fired more than 15 people while, currently, in 2016, the new management are supporting growth and employing new local Iranian people to lead it.

Regarding the development of an agile organization in the framework, the participants reflected as follows. Mike sent in writing his emphasis that an agile organization should be simple, focused and driven by opportunities within the market place. Pete, Mary and Nick argued that organizational investment in the volatile market in the Middle East should be kept at low level if *AgroFirm* wants to maintain effectiveness. An example was the company's current organization

in Egypt where it employed around 100 employees with heavy investment in assets and operations. This setup proved to be inefficient and ineffective following the political instability that rose in 2012 with the spread of revolutions across various Arab countries, including Egypt.

Most of the participants supported the idea that the firm should be driven by external market environment; whilst also recognising the importance of compliance with standard European regulations. In line with the academic literature, they related the importance of adapting to external market challenges. Since the Middle East contains fragmented markets and its volatility varies from one country to another where GCC (UAE, Kuwait, Oman, Qatar and KSA) are much more stable compared to other countries (e.g. Egypt, Iran, Syria, Jordan and Lebanon) a tailored approach to the actionable framework is critical to ensure its effectiveness. This point has also been made in the academic literature: McKee, Varadarajan and Pride (1989) highlighted that efficiency is fostered when companies adapt their strategic orientation towards different volatile markets. Sherehiy, Karwowski and Layer (2007) added that organizations should design structure and strategy to reflect the targeted market and its trends. More recently, Sherehiy & Karwowski (2014) explained the relevance of having a strategic organizational approach towards agility where various business functions are involved in the development of an agile organization.

Jack, Nick and Pete, however, in particular stressed the importance of ensuring sustainability in *AgroFirm*'s Middle East market approach and strategy. They took the example of Iran and the decision to downsize operations in 2012, and also the heavy investment made in Iraq before ensuring a solid strategy. This appeared to these senior research participants as costly to the organization and as having led to a loss of human and financial resources. Accordingly, effectiveness in the management of market volatility should stress sustainability side-by-side with the market driven organization aspect. Mike mentioned that management should commit to a strategy towards the Middle East and ensure sustainability in its investments in order to grow.

Regarding the phasing of implementation of the conceptual model (preparation, responding and learning), this was supported by *AgroFirm*'s management as logical in the context of volatile markets. Vázquez-Bustelo and Avella's (2006) argument in respect to the preparation phase, where an aligned clear strategic vision is required across functions, goes in line with Mike's comment about being focused at this phase. Also Pete and Nick confirmed the importance of the preparation phase as the point of entry to the market, where identification of the strategy that *AgroFirm* would

like to adopt is critical. In respect to the responding phase, the literature explained that management needs to decide ahead of time on their orientation to the selected market as being a reactor, protector, analyser or prospector (McKee, Varadarajan and Pride, 1989). Senior management at *AgroFirm* argued that the company strategy towards the Middle East has a great influence on the development of the processes and ways of working for business delivery. Currently, *AgroFirm* is not ready to go fully agile at the responding phase due to the fact that it has developed in the last five years standard processes and operations to be followed all over the world. Top management pushed standardization to ensure compliance irrespective of the nature and requirements of the market.

Finally, the learning phase was believed by the consulted managers to be of great importance to *AgroFirm*. Pete, however, highlighted a concern about learning without adapting or adjusting management practices. Mike argued that learning in the Middle East environment is continuous and changes as the market in question changes. He gave the example of Syria where at one stage the company was highly experienced in the market. Unfortunately with the current civil war the organization lost its local capability and knowledge and will need to re-learn again after the war ends. The same applies in Iraq and Iran. Accordingly, it is important to follow the learning cycle shown in the actionable framework in volatile markets as changes are expected frequently. On the other hand in other Middle Eastern countries like Saudi Arabia, *AgroFirm* is at phase three and it will be crucial that more and more investment is made in order to develop partnerships with key players. These partnerships are the channel that will foster sustainability and enhance business growth despite market turbulence. Teece et al. (1997) also discussed the importance of the continuous development of organizational learning and capabilities in volatile markets to be able to adapt to changes. This linkage between the views of professionals and academics in respect to the importance of learning demonstrates the need for a systematic process within *AgroFirm* that could drive capability development. In figure 6.6, I show in a schematic diagram the feedback of senior management towards the actionable framework.

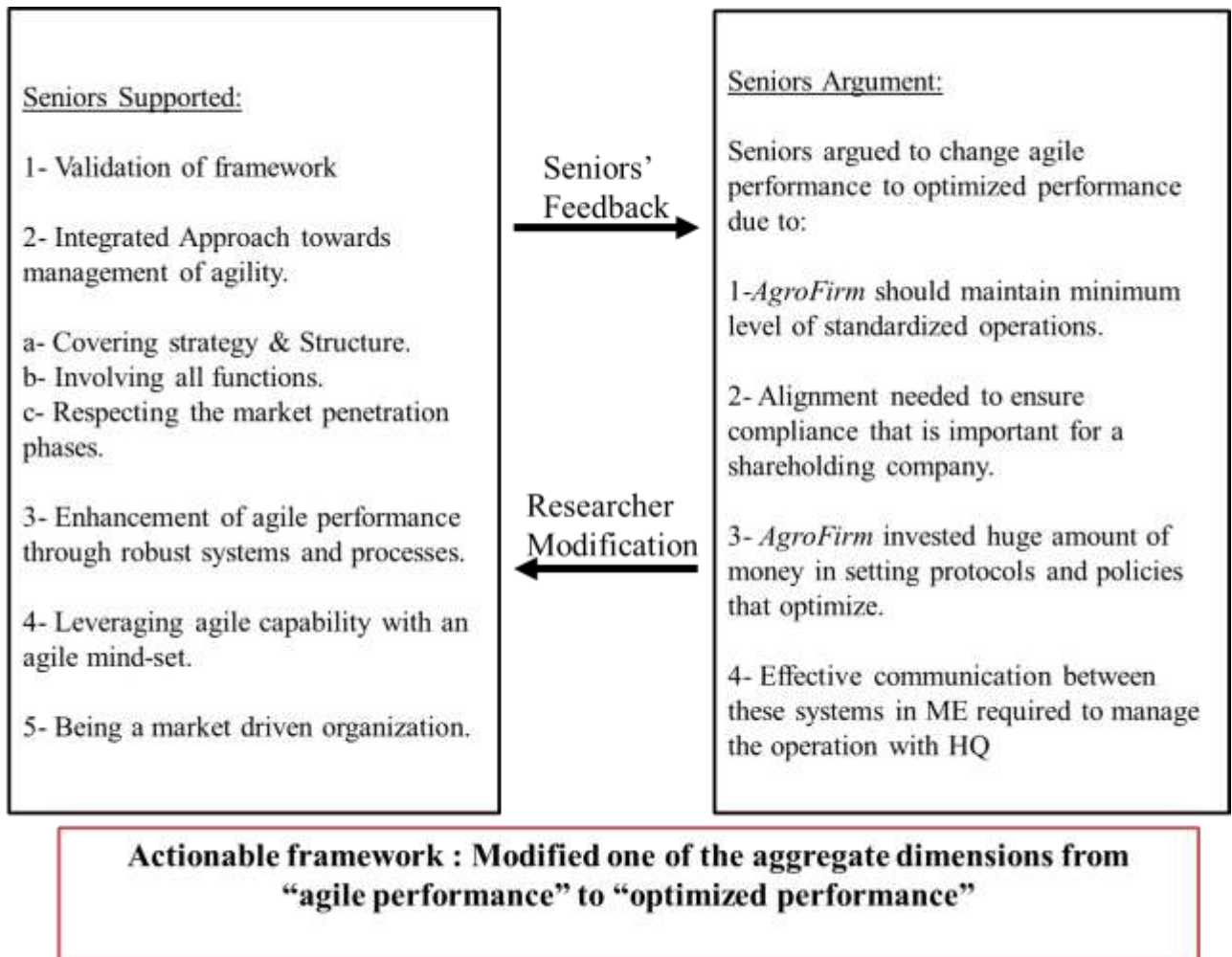


Figure 6.6 A schematic summary of the outcome of the senior management feedback.

6.5 *AgroFirm* Senior Engagement: Review of the Actionable Framework

Reviewing the actionable framework as a whole with senior management helps to ensure that it is robust and allows for minor modifications so that it is accepted by management at *AgroFirm* and thus able to be implemented within the Middle East organization. This final version of the framework is illustrated in figure 6.7 and shows the four aggregate dimensions and the three different phases. The “agile performance” aggregate dimension has been amended to “optimized performance” as per senior management request.

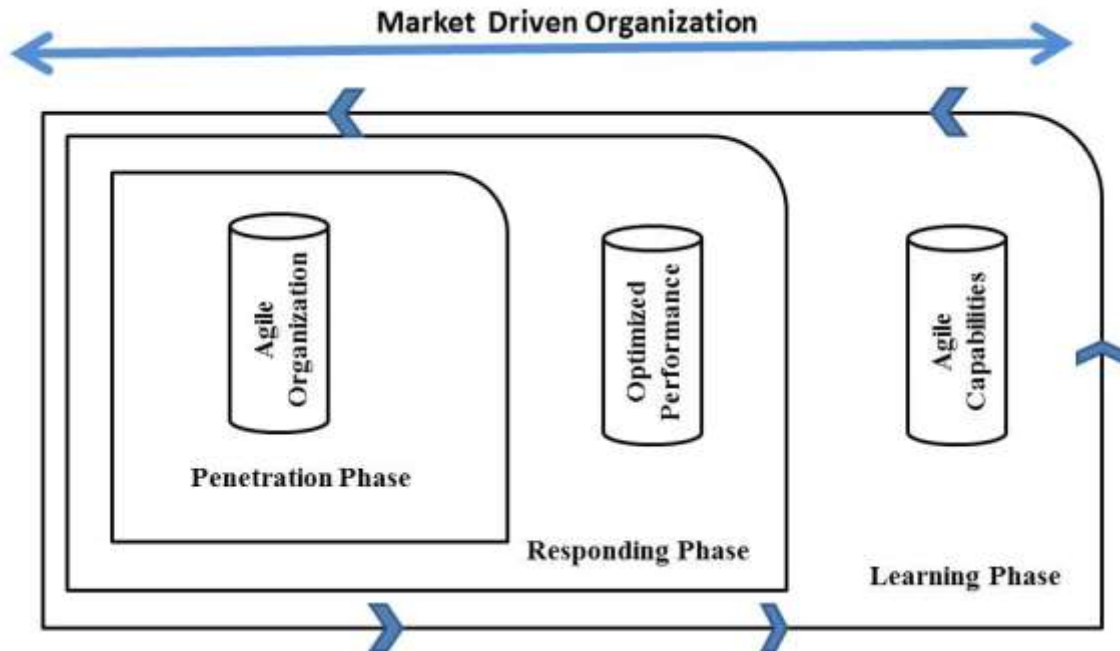


Figure 6.7: Illustrates the complete actionable framework following engagement with senior management at *AgroFirm*

The seniors' argumentation behind the change from "agile performance" to "optimized performance" was related to the fact that *AgroFirm* should maintain minimum level of standardized operations that should go in line with global standard. This alignment needed to ensure compliance that is important for a shareholding company. On top, *AgroFirm* invested huge amount of money in setting protocols and policies that optimize operations across the globe and effective communication between these systems in Middle East is required to manage the operation with headquarter. Seniors added that front line offices will have enough agility in their operation under "optimized performance" that could support effective management of market volatility.

6.6 *AgroFirm* Managers' Proposals for the Effective Management of Volatility

The engagement with senior management at *AgroFirm* was to develop actions that could be implemented at *AgroFirm* Middle East to improve the effectiveness of the management of market volatility. These proposed actions have been developed collaboratively between professionals performing a variety of roles within the organization and myself as the researcher.

This collaborative approach was supported by primary and secondary data from *AgroFirm* (Coghlan and Brannick, 2010). The process of refining the actionable framework was part of my action research strategy to build commitment for change through challenging their existing logics and managerial practices (Greenwood and Levin, 2007). The aim was a refreshed strategy from *AgroFirm's* senior management towards the Middle East that includes implementation and addresses any internal limitation that might surface. To ensure that the proposed actions have sufficient depth while maintaining sufficient width to solve the encountered challenges we focused on a few proposed actions that they considered critical for the drive towards leveraging effectiveness in the management of market volatility.

6.6.1 *AgroFirm Hybrid Management Committee*

The literature review noted that agility supports a shift in the organization paradigm where companies operating in volatile market need a structure that empowers their capable people (Vázquez-Bustelo and Avella, 2006 cited from Kidd, 1994). The empirical data generated highlighted the importance of empowering *AgroFirm's* Middle East local organization to be able to shift from a slow reactive platform to a highly agile structure that responds to challenges of volatility. Accordingly, an empowered hybrid management committee for the Middle East organization was proposed to drive the implementation of the actionable framework for effective management of volatility. This hybrid management committee should include members from headquarters as well as from the local organization including different functions and experiences. Such collaboration across geography, across functions and with different background will encourage responsiveness in decision making, enhance flexibility with speed and enforce absorption due to strong connections with headquarters as well as deep knowledge in market place.

Previously, between 2012 and 2015 (the period during which this research was conducted) the management of *AgroFirm* in the Middle East included only local employees based in Jordan and Egypt. This management was responsible for running operations without being able to take any real decisions, as expressed in the diagnosis of the issue in chapter 4. The Middle Eastern people were always in conflict with HQ due to the fact that they were facing enormous market challenges without any timely decisions from their management at HQ. With a hybrid management

committee, it is intended that the local organization will be able to take decisions more quickly in response to market change. This approach will enhance responsiveness and flexibility with speed and thus will help to foster optimized performance. This commercial committee will have several important tasks as listed below:

- 6.6.1.1. Reviewing the current Middle East strategy to introduce and reflect on the actionable framework of effective management of volatility. Keeping the Middle East *AgroFirm* organizational structure lean will ensure the focus that will be critical for sustainability. The strategy should also reflect the market environment surrounding the Middle East; accordingly investments should be managed based on an opportunistic approach to ensure business maximization with mitigated risk.
- 6.6.1.2 The hybrid management committee should tackle optimized performance by reviewing commercial policies within the Middle East. To run this effectively, there will be a need to review all previous issues that needed decisions from headquarters and confirm that the hybrid management committee is now empowered to make these decisions. In this manner, the managerial committee should re-design the commercial policy, and the processes and systems to engender responsiveness to volatile markets. These actions were considered by participants to be feasible and one that could be implemented in 2016-2017. Top management's role at HQ should be supportive to the hybrid management committee in designing the new commercial policy for Middle East and in providing delegated authority as long as it is compliant with international standards.
- 6.6.1.3 *AgroFirm* should rework functional annual objectives in collaboration with human resources to ensure alignment of a single agility agenda across different functions operating in the Middle East market environment. Such coherence in objectives is intended to foster rapid decision making. This is consistent with the importance of internal coordination within *AgroFirm*'s Middle East organization that emerged from the thematic analysis.
- 6.6.1.4 The Middle East team and supporting functions at headquarters should continuously be engaged in a learning process. Management should create new positions within the HR department that are dedicated to this endeavour where new learning from markets is captured, reviewed and then cascaded back to the local organization. In

addition, the hybrid management committee should develop training programme related to agility thinking and practices. Furthermore, timely sharing of knowledge across the organization and among functions surfaced in the analysis as being critical for the effective management of volatile market. Accordingly there should be a system in place that could enhance this process.

The cash cost of the action list above is feasible as it does not require big investments in recruitment (apart from Iran organization) or structure. The actions mainly shift the way in which the business and organization structure is managed (Meyer, 2015) through re-allocation of existing resources. It requires as well to empower (Bajornar, 2014) the proposed hybrid committee to work effectively together. There might be some expense for traveling between HQ and local team to facilitate meetings of the hybrid committee but that cost is minor. Whilst there might be some investments in training and development required, yet such expenses are already budgeted as other workshops are planned for manager development. Regarding the timing of implementation, I reflect in the next section on the limitations related to the objective of changing the organization mind-set, so that it is more orientated towards management of volatile markets. This action is considered particularly challenging and likely to take more time than any other action. Establishing the hybrid committee was easier by comparison, and has already been completed during the course of 2017.

Considering the risk of the senior managers deciding not to continue the implementation of the action list nor to adopt the actionable framework, then the likelihood is low. This is because of their involvement in the generation of the implementation strategy. In addition, the thesis project increased their awareness of developing agile management strategies in the face of these volatile markets. The research findings drew attention to the impact for not acting in the case of the Iranian market which has experienced: slow growth of sales; increased conflicts across functions and between HQ with local organization; as well as loss of many business opportunities like what happened five years ago (Ref. table 1.2).

6.7 Limitations of Proposed Actions in Respect to the Effective Management of Volatility

The feedback of senior management at *AgroFirm* showed some challenging limitations in terms of implementing the proposed model and actions for improvement. These limitations were few but it is important to take them into consideration ahead of the implementation of the proposed actions.

- 6.7.1 Although the proposed model is feasible and logical to senior managers, they highlighted that HQ top management willingness to adopt such an agility model in the Middle East remains essential. With the current instability of Middle Eastern countries, *AgroFirm* is not committed to investing in these volatile markets. With the exception of the Iranian market, corporate management remains conservative regarding a shift of decision making from HQ to local organizations. They prefer to keep decisions centralized at HQ to ensure compliance and risk mitigation at all times. Provided corporate management decides to adopt agility in the organization, in performance and in building capability then the proposals were considered feasible and workable.
- 6.7.2 It is important to avoid conflict with *AgroFirm* global systems and processes. Francis highlighted that the alignment of objectives between HQ and Middle East local organization will continue to be challenging given the current situation of *AgroFirm*. If the various agile pillars (organization, performance and capability) are to be implemented for more effective management of market volatility then standard operations or ways of working that are followed by HQ should be respected and followed. For example, previously, *AgroFirm* bought several smaller or family companies. It took management at HQ months a few years to be able to integrate these companies into the global operation and processes. The worry about the proposed model is that we creating in the Middle East local organization, in effect, a small company within *AgroFirm* that operates differently from the rest of the organization.

Francis added that multinational companies should always be compliant with corporate policies irrespective of pursuing opportunities that might surface within any volatile market, including the Middle East. It will always remain a challenge for multinationals to gain every single opportunity in an uncertain market of the Middle East. Accordingly, *AgroFirm* should adopt the model that ensures its agility but at same time maintains compliance with international standards. This is a constraint for multinational companies within the Middle East yet it has the potential to be a differentiator versus local Middle Eastern companies.

- 6.7.3 Alignment of objectives and agendas among functions and across *AgroFirm* entities has always been a challenge within the company. Previously the human resource head argued that *AgroFirm*'s main problem is that different functions would like to keep the power they have. In addition, those based in HQ have been privileged in overruling local organizations for more than three years. Accordingly, the senior management from HQ vary between being supportive of the model like Mike or being conservative like Francis. Many functions at HQ are not ready to give back power to local organizations currently. Accordingly, a key limitation for implementation of the conceptual model is the ability to overcome such wider challenge at *AgroFirm* ahead of introducing and driving change toward effective management of volatility.
- 6.7.4 Another limitation of the conceptual model is the ability to find, retain and develop agile capability. Since local people in the Middle East will be the ones to drive implementation of *AgroFirm*'s strategy it is important to highlight the challenge of finding capable employees in the agribusiness industry. *AgroFirm* has been in the Middle East for nearly two decades and they have kept investing in people to upgrade their capabilities and meet multinational standards. This will require continuous investment in learning to leverage local people's capabilities.

6.8 Critical Reflection on the Implementation of the Actionable Framework at *AgroFirm*

The validation of the actionable framework by the selected senior management was carried out by means of an engagement process entailing a collaborative exchange of ideas. Keeping senior

management on board through such a collaborative engagement process will be important as actions are implemented. Senior managers like Jack, who is responsible for the Middle East operations, and Nick who is the managing director of the Egyptian organization, decided to develop an action plan for implantation. Given the consensual ways of working within *AgroFirm*, however, this process is expected to take longer than the timescale for this thesis.

However, the initial impact following the adoption of the actionable framework by *AgroFirm* in the Middle East operation is expected to be in the Iran market. *AgroFirm* Middle East organization have worked with headquarter to set a strategy for the Iranian market that reflects parts of the actionable framework and it includes forward looking business targets. In table 6.2, I share my own view on the expected financial impact for the Iran organization. These figures are based on my professional estimates as I know the market potential very well and my engagement with regional managers within this thesis project has given me a good insights.

The re-investment in people in Iran market by *AgroFirm* is driven by the importance of proximity to market where front line employees will understand better local needs and be able to manage sudden changes in timely manner. To ensure capturing all the learning from the past they engaged two local consultants that worked for *AgroFirm* Iran between 2001 and 2010. The rise in sales will come from identifying new local customers and being focused on private markets only. Also they might need to review their portfolio to rejuvenate it and increase its number by 40% of offered products to the market. In an attempt to meet the market requirements, the management claim to have higher appetite for risk taking and thus will offer higher payment terms that suit the market conditions. For effective logistics, they have hired local highly expert staff to manage in coordination with headquarter all logistical matters. The management announced a local hybrid committee in Iran that includes the headquarter business manager for Iran, head of Iran local office who is a lady (Turkish Nationality) and worked in HQ in supply chain for years, plus three local Iranian employees. This committee are charged with driving the next growth plans and implementation of new strategy in Iran for coming 3 to 5 years.

In Table 6.2, I illustrates the impact of *AgroFirm* Iran upon implementation of the actionable framework. This is represented in column titled 2020 being estimated range set by me as a forward looking business growth presented in percentage terms.

Table 6.2 Trends in Market Performance

Metrics	2012	2013	2014	2015	Estimated Growth 2020
# of Employees	21	2	2	4	26 to 30%
Sales \$ mio.	32	4.0	6.0	8.0	30 to 35%
Market-share %	10.5	2	3	4	4.5-5.0%
Loss in \$ transfer outside country	0.0	(2.0)	(4.0)	(4.0)	(10-12.5%)
# of sold products	52 items	24 items	17 items	17 items	35-40%
# of customers	3 for Private market 1 governmental	2 for private market	2 for private market	3 for private market	25-30% for private market
Collection Terms	120 days	50% in advance	50% in advance	50% in advance	100-150% in # of days

Finally, this chapter, and the process of engagement with senior managers that it has traced, has played an integral role in the thesis to move from a research mode to the more practical implementation mode. As a scholar-practitioner (Coghlan and Shani, 2009), I have seen the importance of being able to have this engagement with senior managers to leverage actionable knowledge by testing and validating the proposed framework. Having done this, the conclusions

of the thesis will be more practical and supportive in terms of driving the effective management of volatility in practice at *AgroFirm*.

Chapter 7: Contribution to Management Practice at *AgroFirm*

7.1 Introduction

The practice of agile management has proved to be critical in response to volatility within the Middle East market. This research has advocated an integrated approach to the implementation of agility ideas. An integrated approach towards agility was also advocated by Sull (2009) and Sharif and Zhang (2001) who argued that agile managerial practices are implemented across various functions to develop enough capacity to respond to volatility. The moment *AgroFirm* management chooses to shift towards an agile organization they will need to adopt an integrated approach (Sherehiy & Karwowski, 2014) across functions to take advantage of the proposed actionable framework. Senior management who were involved in this study were aware of the importance of tackling agility from different functions and were ready to implement that approach gradually.

As previously discussed in the literature review chapter, three phases were identified: the “preparation phase”, “responding phase” and “learning phase”. The empirical research showed the importance of the gradual development of agility within an organization and the proposed actionable model highlighted that an integrated approach towards *AgroFirm* agility is implementable and requires gradual development across various phases. Whilst developed in the context of *AgroFirm*, this model is consistent with what has been developed previously on agility by academia. Through this real-life case study, the above-mentioned themes were supported and contextualised for the highly volatile market like the Middle East.

The implementation of these proposed actions will go beyond the timescale of this thesis work as it will require a lot of work and commitment from *AgroFirm* HQ and the local organization. The immediate priority is for *AgroFirm* managers at HQ and in local Middle East organization to develop a hybrid management committee that is ready to embrace the concept across various functions and later initiate the gradual implementation of the proposed actions in the actionable framework.

The following paragraphs will set out the contribution of this research and its outcomes for both *AgroFirm*'s management and practitioners more generally. They will highlight the limitations of the study and its implication. The chapter will end with some concluding remarks.

7.2 Research Contribution to *AgroFirm* Management

The research project was driven by the “ill-problem” (Turner, 1976) related to multinational agribusiness firm - *AgroFirm* - that was encountering dramatic challenges in managing its business operations in highly volatile markets in the Middle East. The main objective of the research was “to diagnose *AgroFirm*’s problems in respect to the management of volatility in its Middle East operations” (chapter 1). This objective was met through a case study methodology that examined *AgroFirm*’s strategy, operations and activity in the Middle East. Analysis of interviews and documentary data generated key themes regarding the management of *AgroFirm*’s operations in the Middle East. These themes, supported by the literature review, were developed further to produce an actionable framework constituted of three main pillars. These pillars were “agile performance”, “optimized performance” (the modified term following engagement with senior management as per chapter 6) and “agile capability”. Accordingly, the contribution of the research to *AgroFirm* was confirmed with the validation of the proposed actions by senior management. During this validation, they prioritized the development of a hybrid management structure for the Middle East region. This empowered (Bjornar, 2014) hybrid management will be committed to driving operations towards the more effective management of market volatility within the Middle East. One of the main tasks of this hybrid management committee will be to review previous commercial policies and adapt these to market specific needs. Addressing this is essential to ensure progress in optimizing operations at the level of supply chain, human resources and finance while ensuring an adaptable strategy for different divisions. Regarding the agile capability pillar, this will require a longer period of time to implement since changing people’s mind-set (Meyer, 2015) or replacing employees within the organization will not be easy. *AgroFirm* in the Middle East will always be looking for agile and capable managers that could drive the implementation of the proposed actionable model in this thesis.

7.3 Research Contribution to Professional Practice

As for the contribution of the research to practitioners, this thesis intends to offer significant contribution to the understanding of effective management of volatility. I foresee that the challenges of operating within Middle East are a concern across functions, across companies and across industries. The political and economic environment within the Middle East has been getting more complex and volatile since 2011. William (2013) argued that companies operating in politically unstable markets in the Middle East need to be aware that risk management is much more complex. He reflected that Forbes 2013 listed four countries in Middle East as among the world's riskiest countries: Syria, Yemen, Iraq and Iran. Even for Gulf Council Countries, markets that are considered more stable than others in Middle East, the sharp decline in oil prices means that their economies have faced a liquidity crunch, causing a drain in resources that will also lead to market volatility (Raghu, 2016).

This thesis intended to provide an integrated approach (Sherehiy & Karwowski, 2014) for *AgroFirm* that is planning to reform their structure, operation and human resources in response to volatile operating environments. The outcome of the thesis provides an actionable framework that will enhance flexibility with speed, adaptability and responsiveness. It is critical for practitioners operating in the Middle East to be aware on the importance of embracing agility to gain effectiveness in their managerial practices within the Middle East high uncertain business conditions.

This case study of *AgroFirm* represented a real challenge and ended up with a clear action plan that could support driving the company towards effectiveness within the Middle East. The list of actions for effective management of volatility was co-developed by practitioners (*AgroFirm* senior management) and the researcher. These senior practitioners (research participants) were encouraged to reflect upon the research findings and draw conclusions about the implications for their management practice. Marshall (2017) has also argued how such a process of reflection generates useful contributes to professional practice. Accordingly, the results and outcome of the thesis included implications for other professionals involved in businesses operating in volatile Middle East markets. Professionals upon reading this research project will acquire more knowledge about the drivers of volatility in the Middle East. From the literature review they will appreciate the different academic concepts related to agility. They will examine a real case of a

multinational that has been in the Middle East market for more than 15 years and has passed through different experiences to achieve effectiveness. Furthermore, they will be able to evaluate the proposed managerial model that supports any organization to become more effective in their organizational approach towards their performance, market response and people capabilities. This thesis provides a robust framework of ways to tackle the effective management of volatility and it mobilizes existing literature into practice (Crowe et. al, 2017). The methodology followed demonstrated how professionals involved in research could integrate practical insights and be part of the production of knowledge (Crowe et al., 2017).

As a scholar-practitioner and based on this thesis journey of actionable research, it is important for practitioners driving their organizations towards greater agility to follow certain steps. The first is to challenge their own paradigms and be ready to shift their mind-sets (Meyer, 2015) to the emerging highly volatile market drivers. The second is to work collaboratively (Frantz & Rhoda, 2017) across the organization and among various functions to develop an actionable managerial model that could fit the organization's systems. This co-generation of solutions to these market challenges will engender commitment for the implementation of those solutions. Practitioners should also consult academia as well as other experienced professionals to drive agility in their organization and to reduce wasting time and resources while building on already existing knowledge. Frantz & Rhoda (2017) explained that an established collaborative practice among practitioners and scholars can act as a vehicle for addressing complex situations and thus production of knowledge that contribute to professional practice.

7.4 Limitations of the Research

The case study methodology has supported the research project to capture the real context of *AgroFirm's* management in the Middle East through a comprehensive analysis that provided a high level of detail in diagnosing the issue, generating field data, analysing the findings and producing actionable knowledge (Creswell, 2014). These research findings were related to *AgroFirm*, as a multinational that operates in the Middle East, engaged in agribusiness. The study was aimed to produce actionable knowledge for a specific multinational within a specific market environment and the outcome is limited to this context thus being bounded in specific period of time (Creswell, 2014). The research study might have not have captured the complexity of

AgroFirm's management of volatility in the Middle East entirely, yet it raise awareness at level of both senior management and front line to manage market volatility effectively. Changes in the Middle East are continuous and intense and this limits the ability of a DBA thesis research to capture all these changes and reflect them in the study. Accordingly, this research project offers professionals that are operating in the Middle East specific skills related to generating and evaluating evidence that informs organisational change in a specific situation (Ramsey, 2014). As research-practitioner my goal was to cultivate actionable strategies that could improve the way professionals at *AgroFirm* manage volatility and that has been delivered through-out the course of this thesis.

During the co-generation of data with the participants in interviews their stories resembled *AgroFirm's* wicked problems (Churchman, 1967) and the managerial issues they are facing in Middle East market. The emerging themes explained the phenomena based on longitudinal examination for *AgroFirm*, allowing deeper understandings to be built up (Hoon Kang et.al, 2017). The generalizability of the actionable framework has not yet been established and should be tested again upon introduction to other companies or other industries. Accordingly, the outcome of this research is limited to *AgroFirm*, the agribusiness industry and the Middle East market.

Another limitation was the size of the chosen sample. My ability to access other senior managers within *AgroFirm* could be considered as a limiting factor to the research work, given that I ended up with 13 participants in total and five senior managers. In this case study, I used a purposeful sampling approach that provided me saturation in terms of the organisational functions and seniority, as well as the ability to gain access to participants, especially at a time the organization was passing through change. This is in keeping with Creswell's (2014) definition of purposeful sampling, when the researcher selects participants and sites of study that can inform an understanding of the researched phenomena. The targeted sample representing specific functions, geographies and various hierarchal positions supported examination of various variables with the study.

Being an ex-employee of *AgroFirm* who resigned in the same month I started my research project back in September 2014 is also not a real limitation or weakness to the study. As much as I knew about the company, its business, strategies, operations and people, however, I had to manage my own potential bias to the addressed phenomena. With my resignation, I moved from

being an insider action-researcher to an outsider who can drive the action research process without influencing it in terms of decision making or being too close to research participants. As I was aware of this challenge that could appear as limitation for the study, I kept aware of my position as a researcher in the different phases I passed through out the research project.

I did not intervene throughout the in-depth interviews with participants, accepted scholarly schematic analysis to make sense of data without enforcing any information and was aware of mitigation of any potential biases. This was done by adopting an iterative review process that ended by testing research outcome with participants including seniors. In practical words, during the interviews I took the role of an active listener and recorded the whole interview. Furthermore, I wrote transcripts for each one and then based my research on identification of themes through a rigorous first level and second level coding process. With the research analysis and actionable knowledge production I based my conclusions on participatory work with the research participants to control any potential bias from my side. On top, I was continuously being coached by my supervisor where exchange of feedback was processed.

7.5 Research Project Feasibility

The feasibility of the research can be viewed in two dimensions. The first one related to the proposed actions related to *AgroFirm* management in the Middle East and the second is the introduction of the actionable framework. The first dimension represents a short term intervention in an attempt for *AgroFirm* Middle East to enhance their management of market volatility. However, the second direction is rather strategic and requires corporate decision to adopt the proposed framework.

7.5.1 Feasibility of Proposed Actions

A key factor for the feasibility for creating an *AgroFirm* hybrid management committee is the fact that senior management were involved at early stages in the research project, the evaluation of the actionable framework, and the development of actions. The analysis of volatility as well the validation of the proposed action came from the participants who are in both front line and senior management at corporate level. Upon establishing an empowered hybrid committee the tasks

proposed in section 6.3.1 related to reviewing Middle East strategy and working out effective commercial policies that is characterized by being agile to respond to market volatility challenges.

Delivering the designed strategy especially the one related to the Iranian market will incur investment costs and expenses that are considered feasible for *AgroFirm*. In addition, there will be some other expenses related to the establishment of the hybrid committee. In table 7.1, I project as estimates costs and expenses in relation to the set action list by *AgroFirm* senior management.

Table 7.1 Explicit figures related to investment costs and expenses for the action list.

Action List	Description of costs	Estimated Establishment Cost	Estimated Annual Running Expenses
Establishment of hybrid committee from both HQ and local office	Overseas meeting, telecommunication, and administration	\$0	\$10,000
New hiring in Iran	Add 11 new employees by 2020	\$330,000	\$300,000
Agile capability development driven HR	Trainings, workshops, printing guidelines...	\$40,000	\$10,000
Adopting optimized performance framework	Review of commercial & financial policies.	\$5,000	\$25,000
Total estimated costs		\$375,000	\$345,000

From the perspective of development of agile capability the chances for having immediate feasible effect is less. Human resource development usually takes longer time to initiate development and observe its impact. Being in the Middle East the chances of already having in place personnel with agile capabilities is low. Accordingly the hybrid management should initiate development of existing *AgroFirm* team through alignment of their objectives to manage volatility effectively, as well as having progressive learning processes that could result in development of agile capability.

7.5.2 Feasibility of Introduction of Actionable Framework to *AgroFirm*

The proposed actionable framework will face challenges at corporate level related to the mindset of having standardized operations across the globe. Corporate policies are designed to ensure organization compliance, standard procedures and financial targets. For corporate managers to embrace the proposed model, contextualized for the Middle East, will require the senior management that were engaged in the research project to lobby internally with key decision makers at headquarter. They should have a plan for gradual implementation of the model in a way that does not go against corporate standards and compliant hurdles. Their job is to articulate the potential of Middle East markets that would result from improvements in the more effective management of market volatility.

This DBA research project objective was to identify possibilities for effective management of Middle East high volatile market. The case study of *AgroFirm* supported in the development of the contextual model and feasible immediate actions that could support progress in management of volatility in Middle East. Further research is needed for the integration of the actionable framework in a multinational organization like *AgroFirm*. At this stage it is difficult to make an estimate to any projected costs that *AgroFirm* might need to budget for the adoption of the actionable framework. It requires deeper review as it will impact the organization across various levels and functions including headquarter.

7.6 Progressing the Recommendations at *AgroFirm*

Following the work described in Chapter 6 several of proposed actions have been progressed. *AgroFirm's* senior management decided to create a hybrid management committee in the Middle East structure where the heads of sales, finance and supply chain are representing headquarters while the head of marketing and technical are from the local organization. The remit of the new committee is to review their entry strategies in key markets like Iran, Saudi Arabia and Yemen. They also plan to review their commercial policy and supply chain processes to gain flexibility and enhance responsiveness. Adoption of the whole model where effectiveness is

translated through agile performance, optimized operations and agile capability will require a longer period of time that goes beyond the timescale of this thesis work.

7.7 Implications for Future Research

This research project will need in future to be done through a wider survey across different organizations and even across different industries within the Middle East. With such an approach more robust and rigorous outcomes can be achieved that support organizations like *AgroFirm* to drive their management towards effectively utilizing agility. The foreseen research projects should build on the newly developed actionable model for volatility management and should be progressed to fit the needs of other organizations or industries. Only through gaining a greater depth of understanding of the addressed phenomena within selected organizations and industries will the produced actionable knowledge become more meaningful and robust for practitioners.

Based on my own assessment of my findings in light of my literature review there a lot of work still needs to be done to comprehend and utilize agility management. The concepts produced within the body of literature from academics and professionals need in the future to offer more clarity on agility and its applicability. One of the ways to manage such clarity is through actionable research projects that could identify managerial challenges within organizations. Through empirical research work, the terms of flexibility, adaptability, responsiveness and agility could be further developed within the context of managing in volatile environments. Such clarity is essential for both scholars and practitioners as it will help in setting the foundation for further development.

The main outcome was based on the concept of agility, proposing to drive organizations holistically towards agile management so that they can become more effective in the highly volatile market of the Middle East. Agility is one concept that could be used for effectiveness yet there might be other concepts that can do the same or a better job. An interesting avenue for research, therefore, could be through a survey across various organizations and industries to identify best practices among companies in the Middle East in respect to enhance effectiveness in those volatile markets. Such a survey could help academics to pinpoint specific managerial concepts that require further study.

7.8 Concluding Remarks

The initial objective of this research study was to identify ways that enhance effective management of volatility. This objective was met through an action research framework involving

a case study in the agribusiness industry in the Middle East. The evaluation of the success of the model in terms of its applicability, cost effectiveness and efficacy will need a longer period of time than this thesis project. Accordingly, it will be of value to conduct research in two years' time that evaluates the outcome of the implementation of the managerial concept within *AgroFirm* Middle East organization and captures insights and results.

In the final chapter I offer reflections on my development as a scholar-practitioner (Anderson and Gold, 2016). I reflect on the ways this research project has influenced my own management thinking and management practice. I share my plans on the way I intend to use such the various skills and knowledge I have gained out of this research project for my future development.

Chapter 8: Scholar-Practitioner Reflections

8.1 Introduction

I previously worked for an agribusiness multinational based in the Middle East and North Africa (MENA) for more than 15 years. Effective management of market volatility has been my concern as well as the concern of my colleagues due to the challenging events and tasks we were facing to operate the business in the unstable MENA market environment. For more than a decade, I was trying to adapt to continuous changes in the market and to react effectively to the business environment. During that time, I conducted several studies into the best organizational approaches towards the management of market volatility. This DBA thesis was motivated by these experiences and concerns. The project was initiated with the question of how multinationals, like the one I previously worked for, could manage effectively in volatile environments. This study illustrated for me how scholars and professionals approach the challenge differently based on their research findings and experiences. Moreover, my findings offered key insights in terms of articulating actionable knowledge based on the studied case, *AgroFirm*. Throughout the journey of the thesis, I kept thinking about the challenges and threats my ex-employer is facing and was dedicated not just to diagnosis these issues but find meaningful solutions that could be practically applied through a set of actions to mitigate volatility in the markets in the Middle East. I strongly believe that what has helped me in achieving my objectives is an understanding of theory-practice research process (Lee and Greenley, 2010; Tenkasi and Hay, 2004) that I have gained through the DBA programme. This linkage between the academic and practitioner personas has influenced my managerial practices and will progress my future research and consultancy career.

I would like to highlight that initially, and before choosing the current topic, I was interested in effective management of a matrix organization. Upon choosing agility as the core concept for effective management of volatility, however, I recognized that a lot of research remains to be done on this subject for organizations in Middle East markets. Furthermore, I found that agility management, and its adoption by organizations, will influence my future consultancy work as the outcome of this thesis showed its importance for various kinds of organization in Middle East.

8.2 The Advantage of Actionable Knowledge

The initiation of this research started with the thesis proposal where I immediately recognized the importance of practising critical thinking. The critical reflective skills that I developed and practised during the DBA pre-thesis modules including the DDPs proved important. This was revealed during the critique of the existing body of knowledge, which helped to improve my understanding of agility (Stel and Veenman, 2009). Discussions with my supervisor motivated me to challenge the existing research addressing agility management and pushed me to reflect more deeply on the research and the case study in question. During the preparation of the questions for the in-depth interviews, I realized the value of the literature review as the designed interview questions were based on solid foundations.

Furthermore, the research findings and analysis, where emerging themes were captured, directed me to the importance of valuing peoples' reflections and being able to analyse their ideas beyond simply quoting their comments.

The research project supported me in acquiring key scholarship skills, particularly the critique of management research and practices. These skills supported my day-to-day business practice and enhanced my consultancy skills. For example, with critical thinking in the literature review chapter, I was able to acquire new knowledge related to market volatility and agility management. Throughout the process of data generation, however, I felt frustration, since it was challenging to capture and analyse insights from research participants that required validation upon engaging with senior managers. This was part of the rollercoaster journey of the research, wherein at one stage I felt I had knowledge of the case and during other stages I could not determine whether the research was progressing.

In this thesis, I adopted an action orientation towards my qualitative case study and this proved to be the best fit to meet the research objectives. A key lesson from this methodology was the importance of building collaborative relationship with research participants that drive rapport and ensure engagement (Coghlan and Brannick, 2010). Such a collaborative relationship enhanced and motivated the research participants at *AgroFirm* to validate the proposed actions for effective management of volatility. The actionable framework co-produced with the *AgroFirm* senior management has the potential to contribute to management practice beyond the case company. All

this activity developed my capabilities in research and professional practice toward continuously cooperating with stakeholders on the basis of robust research.

Through the research findings and analysis I have experienced action modes of research that were appreciated in practice and by academics (Coghlan and Brannick, 2010; Coghlan, 2011; Greenwood and Levin, 2007; Marshall, 1999; Raelin, 2009). The research participants at *AgroFirm* were key enablers for the identification of related themes and proposed actions for improving the effective management of agility. I came to see my role was to orchestrate the diverse knowledge existing in the literature and the data generated from the field (Greenwood and Levin, 2007).

8.3 Implications for my Management Practice

The investment in time, efforts and finance to complete the Liverpool DBA was quite high. However, this 6 years journey has proved highly rewarding. I have development important practices in terms of leadership, analysis and reflection. I will detailed in the following paragraphs the various skills and attributes I gained from the DBA program and will give examples on the implication for my management practice within my consultancy work.

As a scholar-practitioner engaged with consultancy work at “myleaf.co” the skill of critical thinking has contributed to the improvement various projects I am managing. For example, I am currently running a consultancy project providing deep market research for the Egyptian agriculture market and business environment. I have realized the importance of challenging conservative approaches towards this 100 million-population market and have utilized the critical thinking skills that I have developed through the DBA research process (Antonacopoulou, 2004). I also adopted the inquiry approach (Marshall, 1999) to elicit a deeper understanding of the country’s culture, political and economic drivers, as well as challenges and opportunities. This required combining scientific research methods with contextual and reflexive approaches (Greenwood and Levin, 2007).

The problematizing skill that was introduced in module one and has been practiced throughout the DBA thesis project was another key element in leveraging my capabilities towards consultancy work. For example, I am currently consulting for a Dutch Seeds company based in Hem, Netherlands. At the end of 2017 we were shipping products to Algeria when the local

government made unexpected changes related to incoterms and letter of credits. Without the skill of problematizing, I would have panicked as the impact of business losses for Dutch Seeds could exceed \$2.0 mio. However, upon driving through the steps of problematizing, I was able together with the Algerian government to understand deeper their needs and to collaborate with them to identify solutions and rectify the shipment process. Now I strongly believe that for each wicked problem there is a solution that requires more effort from various stakeholders to manage it and come up with solutions. I did not hold this mind-set or capability before the DBA program.

As well, one of the results of my participation in the DBA programme I have appreciated the case study methodology and consider it the best qualitative research approach in respect to supporting a theory-practice linkage. Last July, 2016, and again in February 2017, I worked on developing and delivering training for a MEPI program (funded by Ministry of International Affairs in USA) on the effective management of Non-profit Organizations conducted in collaboration with the American University of Beirut. I developed the training around a case study that reflected on the issues faced by Syrian refugees in Lebanon. The participants of the training appreciated the approach as they acquired deeper understanding of the diagnosed problem within specific situations and developed rigorous solutions based on research findings and analysis (Eisenhardt, 1989). Through the case study structure, I managed, in both my DBA research project and in my current consultancy project, to always get a rich picture of the addressed issue or problem; one that supported exploration of relevant theories existing within the body of literature before moving on to fieldwork. Furthermore, I co-generated empirical data coming out of in-depth interviews with relevant research participants. With the actionable research based on a case study, I am able to manage, compare and contrast emerging themes with existing academic theories, which empowered and distinguished my consultancy proposal to customers. This has provided me with a better understanding and analysis of diagnosed issues both at work and in academia (Wellman, 2007) and helps in the task of proposing managerial concepts for validation by key stakeholders. Personally, this is the beauty of action research in that it enables both rigour and meaning upon application to practitioners (Shrivastava, 1987). This blend of practice with theory (Hay, 2004) learnt through the DBA program prompts me now to search for evidence and run thematic analysis that get "below the surface" and achieving a better understating of the case rather than jumping immediately to reactive solutions. I considered the DBA program is a step change in my life as it offers a rich terrain (Hay, 2004) related to the theory-practice nexus.

8.4 The Next Step in my Personal Career Related to Research

The DBA programme has helped me develop tremendously as a scholar-practitioner. This change surfaces through viewing people, organizations and everything in life differently. I am now better able to challenge the status quo or existing research concepts with the intention of continuous development. The critical-reflection and action learning (Mumford, 1996) process has given me a passion for on-going inquiry, implementation and write –up. Accordingly, the next step that I envision is to initiate a project on ways to leverage agility in organizations at different hierarchical levels and across functions. This project is expected to be materialized in a book to develop the concept of “*AgiliFull*”. This is about the organizations embracing agility as an integrated solution for the management of market volatility. The drive behind this project is to develop my research findings from producing specific knowledge on agribusiness agility for *AgroFirm* in the Middle East to more generalized concepts across industries within the same geography. With the research-practitioner skills, I am currently armed with different methodological tools, critical thinking and robust actionable research strategies to develop this “*AgiliFull*” development journey. For me, the world is moving towards extreme volatility, especially in the Middle East, and organizations will be more and more in search for complete solutions that enhance effectiveness. On top of this, and as expressed in the literature review, the concept of agility developed by academia has not yet reached saturation in terms of analysis and explanations, and there is a need to review it and examine it deeply in a pragmatic and empirical way.

On the other hand, I have already started at “myleaf.co” to embrace agility management across my training offerings, managerial consultancy activities and seminar speeches. The initial feedback from customers and co-facilitators/trainers is that agility management provides a new working solution to organizations in uncertain environments but that the concept needs to be deepened and extended to both profit and non-profit organizations. The literature has approached the concept within organizations in a fragmented way, as previously explained in chapter two, thus it is not robust enough to be considered fully implantable across the entire organization as a complete solution. There is a lot of work that needs to be done on agility management, therefore, especially at the present time where the Middle East is heading towards further volatility.

8.5 Final Conclusion

Further to experiencing the scholar-practitioner approach to producing novel knowledge and leveraging personal capabilities, I strongly believe that those who are keen in progressing in their career should adopt this approach. My experience with the DBA programme and thesis project has proved that there is a lot to learn from academia. Scholarship could also be leveraged by professionals who have the advantage of real life experience and knowledge. The theory-practice linkage (Lee and Greenley, 2010; Tenkasi and Hay, 2004) offers a robust approach for those that are keen in developing themselves and in creating novel actionable knowledge. It is one that I am looking forward to develop further within my consultancy company.

I recommend the whole program that is considered an enjoyable and challenging journey. I enjoyed the culture of the university and the two visits during the residency was extremely valuable. I enjoyed the virtual friendship I had now from colleagues all over the world. I enjoyed the new skills I acquired that is neither academic nor practitioner but a mix of both. Finally, I appreciated my professor who really supported me in keeping my motivation throughout the research process as well as coaching me to achieve our mutual target that is to produce actionable knowledge.

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